

Using Amanda Portal CallQ Agent The Amanda Call Queuing Package

Version 1.65

June 26, 2007

1 INTRODUCTION.....	3
2 SETTING UP THE QUEUE - ENABLING AND ADDING PRIVILEGES.....	5
2.1 Queue Rules	6
3 INSTALLING CALLQ AGENT.....	9
4 LOGGING INTO CALLQ AGENT.....	11
5 THE QUEUE MENU.....	12
5.1 Attach to Queue Settings.....	13
5.2 Agent Display Information and Button Definitions	15
5.3 Queue Settings.	16
5.4 Greetings Dialog	19
5.5 Comfort Messages.....	21
5.6 Changing the Hold Music.....	21
5.7 Call Time Limits.	23
5.8 Internet Call Settings.....	25
5.9 Display Settings.	39
5.10 Application Pipe	40
5.11 Changing the Default Ring.....	42
5.12 Wrapup Comments and QCodes.....	42
5.13 Call Queue Priority... ..	45
6 CALL QUEUE AGENT TRANSFER PROCESSES.....	47
7 ENQUEUED CALLS.....	50
7.1 Enqueued Call Column Definitions:	50
8 AGENT MENU OPTIONS.....	53
8.1 Agent List.	53
8.2 Agent Settings.	55
8.3 Enabling the Call Record Feature.....	57
9 CALL MENU OPTIONS.....	59
10 REPORTS MENU OPTIONS.....	61
10.1 Calls... Incoming Calls Report	62
10.2 Calls... Call Duration Report.....	63
10.3 Calls... Lost Calls Report.....	64
10.4 Caller ID Report	64
10.5 All Agents Stats.....	65
10.6 Specific Agent Stats.....	65
10.7 All Q Specific Agent Stats.....	66
10.8 Specific Agent Actions	66
10.9 Agent Need	67
10.10 Call List... Specific Agent	68
10.11 Call List... All Agents	69
10.12 Call List... Dropped Calls.....	69
11 WINDOW MENU OPTIONS.....	71
11.1 Real-Time Statistics Dashboard Display	72
APPENDIX A: CALL REPORT REFERENCE TABLE.....	75
APPENDIX B: CALL PROCESSING DIAGRAM.....	79

1 Introduction

Amanda Portal CallQ Agent is a powerful, flexible, fully featured ACD application used with an Amanda Portal server. Amanda Portal ACD queues are mailboxes that have been configured as ACD queues. Any mailbox can become an ACD queue when given the proper privileges, and any mailbox can become an agent of an Amanda Portal ACD queue.

Traditional ACD queues are used to queue calls. Amanda Portal's CallQ Agent can do much more than that. Amanda Portal can also queue voicemail messages, faxes, emails, and instant messaging chat distributing all these types of communication evenly among agents of an Amanda Portal ACD queue. These new capabilities provide your customers a higher level of customer service that is just not available with traditional call queues.

In order to use CallQ Agent the Amanda Portal server must have the Call Queuing module enabled, and allow the use of the CallQ Agent client. This module is an optional module that must be purchased with the Amanda Portal server or can be purchased at a later time unlocking CallQ Agent.

CallQ Agent provides its users with the ability to connect to the Amanda Portal server via local area network (LAN), wide area network (WAN), or the Internet. CallQ Agent supports Microsoft Windows 95, 98, NT, 2000 and XP operating systems

When using Amanda Portal and CallQ Agent you can create an unlimited number of call queues where each queue can have an unlimited number of agents per queue (providing you have purchased enough client licenses). CallQ Agent client can connect to one or more queues (up to 100 maximum) and uses a single client license per login to the Amanda Portal server. Amanda Portal server comes standard with 10 client licenses (10 users can connect to the Amanda Portal server via the network simultaneously). Additional client licenses can be purchased from the Amanda Company.

CallQ Agent is a great tool to effectively manage incoming calls, messages, faxes, emails, and instant messaging chat requests for call centers, technical support departments, sales groups and anywhere effective call management and detailed call reporting is needed. CallQ Agent provides agents of the queue important information about callers holding in queue, such as caller id, caller id name, how long they've been holding, and what port their call came in on. Calls can be selectively or automatically connected to agents of the queue. Additionally, when calls are completed comments about each call can be entered by the agents and later reviewed by running call reports.

Callers holding in queue can hear a number of different pre-recorded queue greetings and comfort messages. Greetings can be recorded and used to perform specific actions such as playing a custom greeting to the caller when their call enters the queue (initial queue greeting), a position change greeting (when their call moves up in the queue), a transfer greeting (when being connected to an agent), a voicemail greeting, queue closed greeting (when agents are not logged into the queue), timeout greeting or hold greeting. In addition to the queue greetings and comfort messages, the Amanda Portal server (ACD) can tell the caller their position in queue, or estimated hold time based on real-time heuristic call activity. CallQ Agent supports an unlimited number of comfort messages, which are played in order after each time the

music on hold music is played. Each queue can have its own custom hold music, or the default hold music can be configured to be played in 30, 60, or 90-second intervals.

2 Setting up the Queue - Enabling and Adding Privileges

Any mailbox in the Amanda system can potentially be used as a call queue. The mailbox number identifies the queue. The queue mailbox is the owner, or administrator, of that particular queue.

First identify what mailbox you would like to use as a queue. Then log into Amanda Portal Station and either select that mailbox (if it exists) or create it, and assign the following privileges:

CREATE_QUEUE	This privilege does not show up in the default privilege list and must be added to every mailbox that turned into a queue.
Notify Record Privilege	Queue mailboxes must have this privilege enabled in order to use Internet call types.
Create Mailbox Privilege	This privilege must be enabled to use all Internet call types except for voicemail enqueueing.
Method Edit Privilege	This privilege must be enabled if you would like to over-ride certain queue actions.
Auto Schedule Privilege	This privilege must be enabled in order to use email enqueueing.

Note: If you would like to take advantage of all queue features, make sure you add the CREATE_QUEUE privilege, and enable Notify Record Privilege, Create Mailbox Privilege, Method Edit Privilege, and Auto Schedule privilege.

Figure 1 shows the "CREATE_QUEUE" privilege being added to mailbox 10. Once a mailbox has this privilege, the owner of the mailbox can use CallQ Agent's Queue menu, "Create Queue" function, to create the queue. This operation needs to be done only once per mailbox, unless the queue is subsequently deleted.

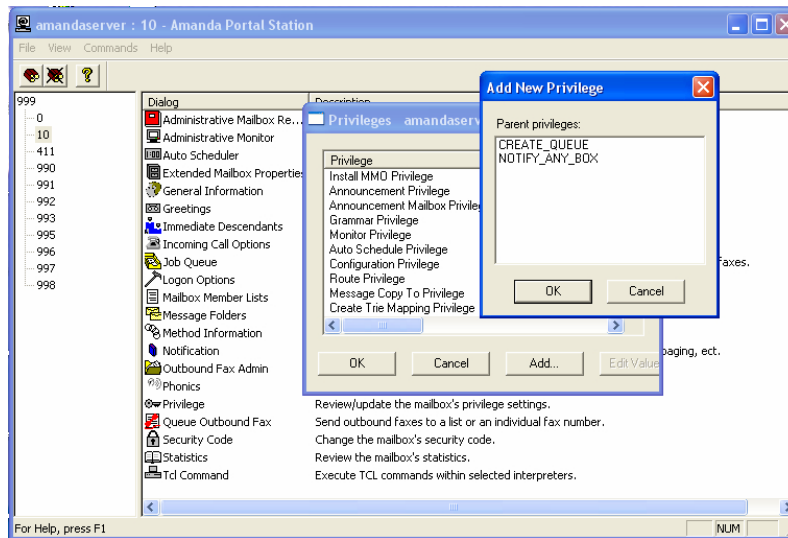


Figure 1: Enabling the CREATE QUEUE privilege

2.1 Queue Rules

The basic job of a call queue is to connect callers to agents. Which are normally transferred to agents in the order the calls entered the queue, and agents are normally chosen based on how long they have been available to take a call. Sometimes agents will be privileged to take calls out of order, or they may be privileged to reject calls from particular callers.

Callers can potentially express a skill requirement (or more than one), and they can be connected only to agents whom the queue administrator has designated as possessing those skills. When there are no agents logged into the queue who possess all the required skills, then that caller will “fall out of” the queue and, normally, go to voicemail where they can leave a message. There are various circumstances under which a call will fall out of the queue automatically. These circumstances are:

- If the queue is full (when the queue administrator sets a maximum number of calls holding) and callers try to enter the queue.
- Callers holding for the maximum queue time (if a maximum waiting time is set by the queue administrator).
- If calls are queued waiting to be answered and all agents log out of the queue.
- When there are no agents are logged into the queue (supervisors are not considered agents).

By default when any of these things happen, the caller is sent to voicemail. Custom changes can direct these calls elsewhere. The following are extended mailbox properties that can contain Tcl code that states what to do otherwise:

For a position change event an override method can be specified by `QUEUE_POSITION_METHOD`. If not specified then play the position in standard form.

For a transfer event an override method can be specified by `QUEUE_TRANSFER_METHOD`. If not specified then transfer in standard form.

For a no more agents attached event an override method can be specified by `QUEUE_CLOSED_METHOD`. If not specified then go to voicemail.

For a queue timeout (max enqueued time) event an override method can be specified by `QUEUE_TIMEOUT_METHOD`. If not specified then go to voicemail.

For a play greeting event an override method can be specified by `QUEUE_PLAY_GRT_METHOD`. If not specified then play the specified greeting.

For a go to voicemail event an override method can be specified by `QUEUE_VOICEMAIL_METHOD`. If not specified then go to voicemail.

To use any of these settings you must create an extended mailbox property entering the appropriate name (capitalized) in the property field and setting an appropriate Tcl command.

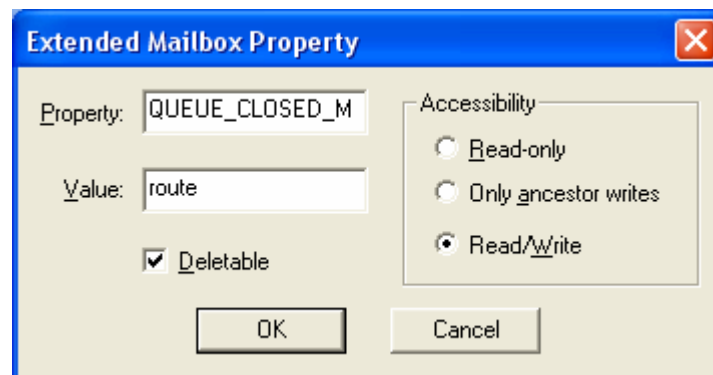


Figure 2: Example Extended Mailbox Setting

Important Note: The value for any of these advanced queue settings can be a custom procedure (proc). The file containing the proc can be anywhere but if it's not in the Amanda Portal install folder (c:\amanda by default) you must specify the full path to the file, and the file must be sourced in adding the new file name to global parameter "tcl_source_files".

For example, if you want to create a new command to re-route the caller to another mailbox based on one of the actions above (such as when the queue is closed), do the following:

1. Create a text file called route.tcl using notepad or some other text editor.
2. Enter the following text to into the route.tcl file (exactly as shown):


```
# Custom command to re-route a caller to the specified  
# mailbox.  
  
proc route { x } {  
  
    method_chain <box>  
  
}
```
3. Add route.tcl to the global configuration parameter tcl_source_files.

Note: Enter the text exactly as it's shown here. Replace the word box with the mailbox you want the call to be sent to when the action takes place (in this example the queue being closed).

3 Installing CallQ Agent

To install CallQ Agent you must have access to Amanda Portal server via the network. After the Amanda Portal server PC is physically connected to the network, you'll also need to configure the Amanda server PC appropriately for the type of network it's connected too.

Assign the Amanda Portal PC an IP address, appropriate subnet, gateway and DNS settings. Then do one of the following:

When Connecting Amanda Portal to a Domain

If the network is a domain, the Amanda Portal PC will need an account to log into that domain in order to be trusted by other computers on the network, and for the Amanda Portal PC to trust users logged into the domain. See your network administrator for assistance with the network configuration of the Amanda Portal PC for the domain.

When Connecting Amanda Portal to a Workgroup

If connecting Amanda Portal to a peer to peer workgroup you'll need to create at least one account on the Amanda Portal PC within control panel "Users and Passwords" in order to access files on the Amanda Portal PC via the network. The created user and password can later be used when trying to access the Amanda Portal server PC shared folders.

Access the Amanda server via the Shared Clients Folder

Access your Amanda Portal server through "Network Neighborhood" or "My Network Places". Once you find the Amanda Portal system, usually "Amandaserver", double click on it. You'll see a shared folder called "Clients". Open the shared folder. To start the installation double click "ClientsInstall". Read through the details for each screen before proceeding with the installation. For a simple installation, choose the default options for the install folder, CallQ Agent as the only client to install (the installer can be run again at a later date if needed to install other clients) and default program group "Amana Portal Clients". The installer is relatively small and only takes a few minutes to complete. Follow click the appropriate buttons to continue through the installer and click finish when prompted. Figure 3 shows the list of clients that can be run via clients installer.

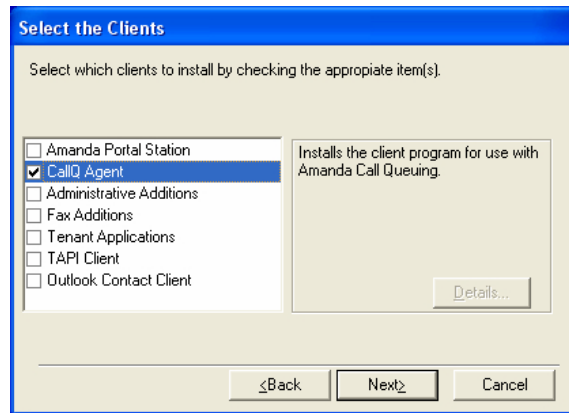


Figure 3: Selecting the Clients

Make sure you select CallQ Agent from the client list as shown in figure 3. You can also install other clients such as Amanda Portal Station, and optionally its administrative additions and/or fax additions. Additionally, you can install other clients from here, which include Tenant applications (for tenant management), TAPI Client (which can be used in conjunction with CallQ Agent for CRM), and Outlook Contact Client (if being used). Finally, click next to continue and then click Finish to complete the installation.

4 Logging Into CallQ Agent

To log into CallQ Agent, click **Start => Programs => Amanda Portal Clients => CallQ Agent**. You'll see a dialogue box (shown in Figure 4) asking you to enter the following information:

Remote Address Enter the Amandaserver computer name, or IP address. Normally it's "Amandaserver". Can also be "localhost" when running clients on the Amanda server PC.

Agent Number Enter your mailbox number here.

Security Code Enter your mailbox password (security code) here.

Remember Security Code When enabled CallQ Agent will store your mailbox password for future logins.

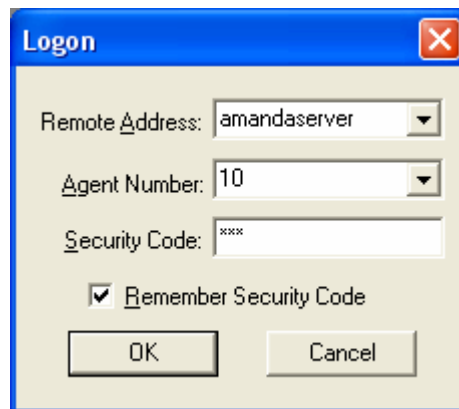
A screenshot of a Windows-style dialog box titled "Logon". It has a blue title bar with a close button (X) in the top right corner. The dialog box contains four input fields: "Remote Address:" with a dropdown menu showing "amandaserver", "Agent Number:" with a dropdown menu showing "10", "Security Code:" with a text box containing "xxx", and a checkbox labeled "Remember Security Code" which is checked. At the bottom are two buttons: "OK" and "Cancel".

Figure 4: Logging into CallQ Agent

Once you've filled in the correct remote address, agent number (i.e. mailbox number) and security code, click OK to logon. Once you're logged on, you'll have access to the "Queue" menu.

Note: CallQ Agent will attach to all queues that you are an agent of, regardless if you have attached to them before or not.

5 The Queue Menu

Once you're logged into CallQ Agent, the attach to queue dialog automatically pops up, or when using the newer version of CallQ Agent will automatically attach you to all the queues you're a member of.

Once the dialog is open you'll be prompted to select the queue in which to attach, and the extension number you'll be working at, or If this is the first time your logging into a queue mailbox and your creating a new queue you'll see a message stating "You are not an agent of any existing Call Queue. Or, you are already attached to the queue". This message is being presented only because the queue has not been created yet. Click ok to continue on and cancel the attach to call queue dialog. Click on the queue menu to create the queue.

The Queue menu contains the following choices while not attached to a queue:

Attach to Queue... Use this option to join a call queue, which has already been created by another user who has added you as an agent of their queue. Or to attach to your own queue.

Create Queue... If you wish to create a new call queue for the mailbox you're logged in as ,you can create the queue by selecting "Create Queue". If you have this privilege enabled, you will see a message stating that the queue was created successfully. Otherwise, if the "CREATE_QUEUE" privilege is not enabled for the mailbox, you won't be able to create or delete a call queue and you'll see the following message: "You do not have the privilege to create or delete this call queue".

Delete Queue... Use this option to delete the existing call queue. The privilege "CREATE_QUEUE" must be enabled for the mailbox in order to delete an existing queue. In order to delete a call queue, no agents can be currently attached to the queue (and therefore, the queue must have no calls).

Login... Used to start the logon process.

Logout ... Used to close the connection to Amanda Portal server without exiting from CallQ Agent.

Exit ...Closes the CallQ Agent program.

When you click "Attach to Queue", you'll see the dialog box like that shown in Figure 5.

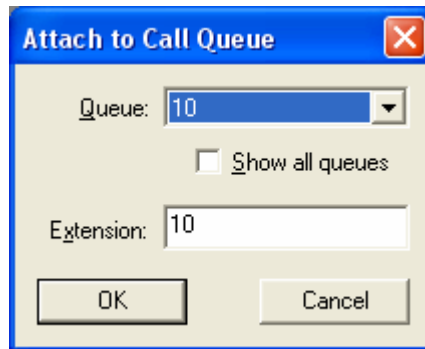


Figure 5: Choosing the queue to which to attach

5.1 Attach to Queue Settings

When attaching to a queue you'll have the following choices:

Queue The drop-down list enumerates all the queues that you are allowed to connect to on this server. If your mailbox number is already connected to a particular queue, then that queue will not be displayed by default.

Show all queues A drop down list that shows all the available queues an agent can attach to. Once attached to a queue, you'll see the screen like that in Figure 6.

Extension When attaching to a queue the extension field can be used to change the location of where calls will be transferred when you accept a call. This is useful when working in a different office or location.

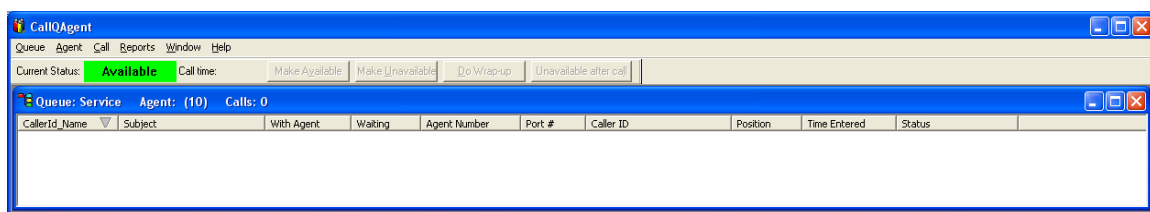


Figure 6: Sample logged-in screen

After you've logged into the queue, the queue menu changes and shows a few new menu options not previously available. Figure 7 shows the new queue menu after logging in:

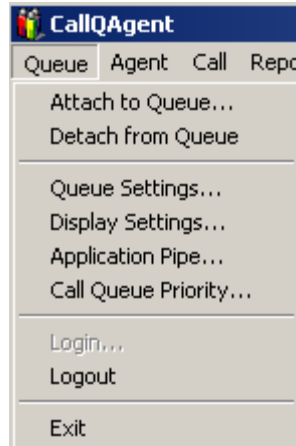


Figure 7: Logged in Queue Menu

Most of the queue settings are the same as the initial queue menu, except for the following:

Detach from Queue Used to disconnect from the selected call queue without exiting CallQ Agent. This is sometimes necessary after making agent setting configuration changes, or after changing queue settings.

Queue Settings... Opens the queue settings dialog used to customize the call queue. Queue settings are discussed in section 5.1. Only queue administrators and supervisors can modify queue settings. However, supervisors cannot modify Internet Call Settings.

Display Settings... Opens the display settings dialog used by agents to customize the call queue display. Display settings are discussed in section 5.5.

Application Pipe... A way CallQ Agent can pass data to another application. Generally, this feature is used when a new call gets assigned to an agent, the information is passed to the application specified by the pipe. In most cases custom programming is required to use this feature. A good example of when the application pipe is used is when utilizing voicemail, fax, email and instant message enqueueing. This is discussed later in this document.

Call Queue Priority Opens the call queue priority dialog allowing an agent who is the member of multiple queues to define a queue priority list. The call queue priority dialog controls what calls will be sent to the agent when multiple calls are enqueued within more than one queue at the same time. Call queue priority is discussed in section 5.8.

5.2 Agent Display Information and Button Definitions

Available (Green) This means that you're ready to accept a call. By default, if there are calls in the queue that are in the "Available" state (waiting for an agent), then the longest-waiting such call will be connected to the agent who has been waiting for a call the longest (however, in the queue settings you can configure the queue for "agent with the fewest calls", "agent with the shortest connect time", or set agent priorities which will over-ride the other settings). Agents who have just logged into the queue are treated as if they have been waiting forever for a call, so they have the highest priority of taking the next available call.

There are some exceptions to this general rule. If skills-based routing is being employed, then a call requiring a skill that the current agent does not have will not be connected to that agent. If this agent has the Rejection privilege and has rejected a particular call, then that call also will treat that agent as if he or she is unavailable. Finally, the queue administrator can change the rule for selecting an agent who has the lowest talk time or least number of calls taken instead of the longest wait time.

If an agent "drops" a call (does not answer the phone when it rings), the agent is made unavailable automatically, on the assumption that he or she has left the area. If that agent comes back and clicks "Make Available" to become available again, then for a period of 30 seconds, that particular agent will be treated as unavailable by the particular call which was dropped.

Unavailable (Red) In the Unavailable state, the agent can watch the activity in the queue (if so privileged) but will not automatically be assigned any calls. If the agent has the privilege to "take" calls (to pick particular calls out of the queue, not necessarily the longest-waiting call), then the agent can do so even when in the Unavailable state. When the agent finishes with a call, the CallQ Agent will return to the Unavailable state after Wrap-up is finished.

Deciding (Blue) – The deciding state is the time in which an agent has the rejection privilege and is given time to accept or reject the call as in they are "deciding" whether or not to take the call.

Connecting (Light Blue) – The connecting state is the time in which a call is transferring to an agent, and the phone is ringing.

Init In Call (Pink) The queue administrator can set a parameter called "Minimum Connect" which specifies a minimum amount of time that an agent must be talking to be considered to have taken a call. By default, this parameter is 0, meaning that once an agent answers a call, the agent goes immediately to the "In Call" state. But if the parameter is positive, then for that many seconds, the agent will be in the "Init In Call" state, and then will progress automatically to the "In Call" state. Should the agent hang up on the call before reaching the "In Call" state, then the agent is considered to have dropped that call. This could happen if the agent happens to pick up the phone to make an outbound call just as the system is bringing a call to the phone. The agent might not realize what had happened since no ringing would have been heard, and might then hang up on the caller. Since the agent would still be in the "Init In Call" state, the system will assume that the caller did not actually connect to the agent.

On Call/In Call (Purple) This is the state when the agent is speaking with a caller, after any “Init In Call” time has passed. The Call Timer will record how long the agent stays in this state. When an agent is on a call, the status in the queue shows “connected”.

Wrap Up (Yellow) Call centers have an option to allow agents to be given a short time after completing a call to “wrap up” the call, such as recording notes about the call or to give the agent a short break before the next call. For more information about wrapup see sub-section 5.1 below.

Checking (Dark Red) The time that it takes after wrapup to see if you are going to be assigned another call, go available or unavailable.

Call Time Next to Current Status is the call timer. Once you take a call and enter the connected state, the call time will count the seconds (and minutes) you’re on the call.

To the right of the call time there are four buttons used to control the status of an agent, if you are so permitted by the queue administrator. These buttons include:

Make Available To have access to the make available (and make unavailable) Buttons, you must have the “available” privilege enabled. When enabled, clicking this button tells the call queue you’re ready to take calls. If you’re available, and a new call comes into the queue, it will be automatically sent to your extension unless the queue has been configured otherwise. If you don’t have the “Available” privilege, then you’re “always available” as long as you’re logged into the queue, are not on a call, or in wrap-up.

Make Unavailable If privileged (the available privilege is enabled), an agent can be unavailable (or available). Clicking this button tells the call queue you’re not ready to answer a new call, and while in an unavailable state calls will not be sent to you. Once you’re ready for a new call you can click the “Make Available” button, or you can selectively take a call by double clicking the call and clicking the connect button (if you have the assign/control call privilege).

Unavailable after call Provides a way for an agent to make them self unavailable after completing their call. Choosing unavailable after call changes the state of the agent from available to unavailable so that when they wrapup their current call they’ll not get another call from the queue. This is useful when an agent needs a break or wants to go to lunch.

Do Wrap-Up Initiates the wrapup state for the agent after finishing up with a call. Generally, the Do Wrap-up button is only used when mailboxes are configured to perform supervised transfers. When mailboxes are configured for other transfer types such as hairpin or conference transfer call wrap-ups are automatic due to the calls being monitored. See “Understanding Transfer Types” later in this document for more information about call transfer types.

5.3 Queue Settings. . .

Only the owner of the Queue or a queue supervisor can modify certain queue-related settings by clicking on “Queue Settings. . .”. Doing so will result a Queue Settings dialog window being displayed, shown in Figure 8.

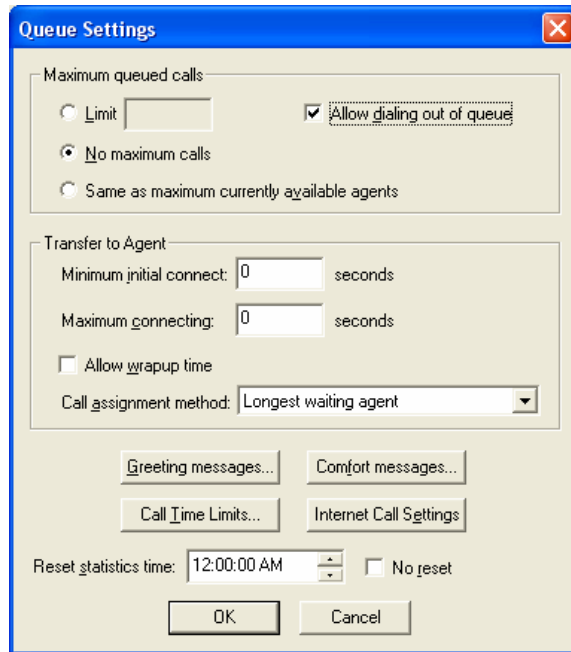


Figure 8: Queue Settings Dialog

Note: Only the owner of the queue can modify Internet Call Settings.

Queue Setting Definitions:

Maximum queued calls

Related settings allow the queue administrator to define a maximum number of calls that can hold in the queue at the same time. By default there is no maximum call limit.

Limit The maximum number of calls allowed in the queue at any time. When the maximum number of calls allowed is already enqueued, all new calls are sent to voicemail.

No maximum calls If checked, then there is no limit to the number of calls which may be waiting in queue. Otherwise, the “Maximum Calls” parameter will govern whether a new call can enter, based on the current number of waiting calls. Calls beyond that maximum are sent to voicemail.

Same as maximum currently available agents Sets the number for maximum queued calls to the number of currently available agents. Once the number of calls in queue is greater than the number of available agents, those calls will be sent to voicemail to record a message.

Allow dialing out of queue When enabled, callers can dial digits to exit the queue. Dialing out of the queue consists of dialing another mailbox, menu, or pressing * to leave a message in the queue mailbox. Otherwise if not checked, caller's dialed digits are ignored.

Transfer to Agent

Transfer to agent settings control how calls will be transferred to agents, unless agent priorities are enabled. Agent priorities take precedence over call assignment methods.

Minimum initial connect This is the minimum number of seconds that calls must be connected to an agent before they are considered to have been completed. This parameter determines how long agents will be in the "Init In Call" state.

Maximum connecting The maximum time the queue manager is willing to wait for a connect or fail confirmation from the call that is currently trying to transfer to them. This is a fail-safe time in case the call was not to come to the agent, which would leave the agent in the Connecting state forever. The default is 5 minutes, which is the same as specifying the value of 0.

Allow wrap-up time This enables the adjusting of the wrap-up time per agent.

Call assignment method This drop-down list lets you select the method used to assign an agent the next call. This is based on agents currently available. The default is the longest waiting agent. The choices are:

Longest waiting agent Assigns calls to the agent who has been off a call for the longest period of time. Agents who have just attached to the queue are considered to have been waiting an infinite amount of time, so they have the highest priority when a call becomes available.

Agent with fewest calls This method should be chosen if you wish to make the number of calls handled by each agent be approximately the same. The agent who has so far handled the fewest calls will get the next call. Obviously, agents who have just attached to the queue have handled zero calls, so they will have the highest priority.

Agent with shortest connect time This assignment method can be used when you want the agents to have approximately equal times talking to the callers. Again, an agent who has just attached will have zero connect time, and so will have the highest priority initially.

Greeting messages. . . This button brings up a dialog box for configuring greetings callers will hear when they enter or leave the queue. It's described in Subsection 5.2.

Comfort messages. . . This button brings up a dialog box for configuring periodic "comfort messages" to be played to waiting callers. This is described in

subsection 5.3.

Call Time Limits . . . This button brings up a dialog for configuring call time limits discussed in subsection 5.4. Call time limits are used to add color to the background of a call holding for more than the specified period of time, and to control other time related settings such as minimum lost and maximum queue times.

Internet Call Settings...Used to enable advanced queue features such as email enqueueing, voicemail enqueueing, fax enqueueing and instant message enqueueing. See chapter 5.5 for more information.

Reset Statistics Time Sets a time when to reset the real time statistics of the dashboard display. The default time is 12:00am. If no reset is selected, this feature is disabled. These stats are also reset when the queue is closed and re-opened again.

5.4 Greetings Dialog

The greetings dialogue is used to define certain mailbox greetings to be played when certain actions occur. By default, greetings are not configured and will not be played when a caller dials a queue mailbox. Instead that call is queued up, and the caller hears the music on hold music. However, greetings can be used to customize call queues providing callers important information while waiting to be connected to an agent.

An example of the greetings configuration dialog box is shown in Figure 9.

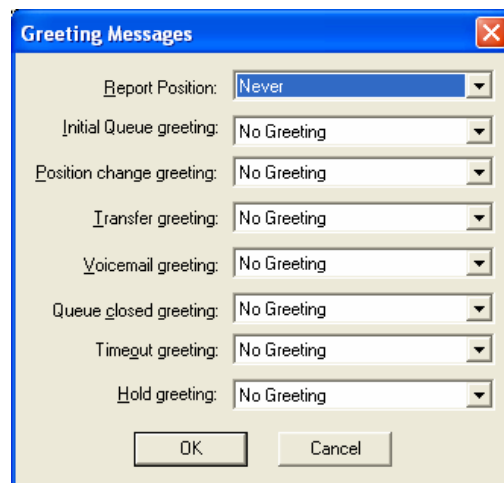


Figure 9: Greetings Dialog Box

Greeting Message parameter definitions:

Report Position The system provides a number of different ways to inform callers of their position within the queue. The “Report Position” setting allows the

queue administrator to select which method will be used for callers of the queue. The choices are:

Never The position is not reported to the waiting caller.

Say current position When the caller enters the queue, and each time the number of callers ahead of them decreases (either because those callers chose to hang-up, dialed out of queue, or were connected to an agent), the caller will be informed of their updated position.

Say estimate time When the caller first enters the queue, an estimate of the expected waiting time to speak with an agent will be played. Thereafter, the caller will hear only the hold music and optional comfort messages. The estimate is calculated from the current rate at which the agents are de-queuing calls and the number of calls ahead of the current caller in the queue.

Initial Queue greeting The selected greeting will be played to callers when they first enter the queue (if an agent is not currently available), if an agent is available, their call will be transferred to that agent and the caller will either be transferred, or the transfer greeting will be played to the caller if defined. The initial queue greeting could be set to greeting 1 stating “You have reached the technical support department, please hold for the next available agent, all calls are answered in the order received”.

Position change greeting The selected greeting number that is played to the caller before their current position is played to them. This greeting will only be played if report position is set to “say current position”.

Transfer greeting The selected greeting number that is played to the caller when they are about to be transferred to an agent. This greeting might say “An agent is now available, please hold while your call is connected”.

Tip: If you have chosen to use play a transfer greeting, you’ll want to disable the “play please hold” greeting for agents within their incoming call settings using Amanda Portal Station.

Voicemail greeting The selected greeting number that is played to the caller when they are sent to voicemail. This only applies to callers that have entered the queue in the first place. When a queue is closed and a caller attempts to enter the queue the current greeting is played. For simplicity you can set the current greeting to be the same as the voicemail greeting.

Queue closed greeting The selected greeting number is played to the caller when no agents are left who can take their call, so the caller is forced to leave the queue. This greeting is not necessarily the same as that which callers hear who cannot enter the queue (for instance, if there are no agents attached to the queue): in that case, callers hear whatever the current greeting is for the mailbox.

Timeout greeting The selected greeting number is played to the caller when they have waited in the queue for the maximum amount of time.

Hold greeting The selected greeting number is played to the caller when an agent uses the hold button within the call settings dialog.

5.5 Comfort Messages

The “Comfort Messages. . .” button brings up the dialog box shown in Figure 10. Comfort messages are recordings that are played periodically while callers are on hold and are otherwise listening to the selected Amanda hold music. The queue administrator records these comfort message(s) as regular greetings in the queue mailbox. This dialog is then used to specify which of the greetings, by number, should be played as comfort messages, and in what order they will be played to each caller.

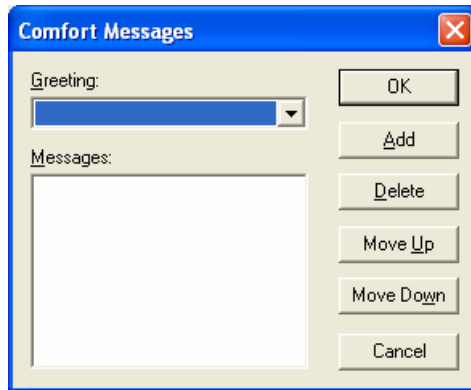


Figure 10: Comfort Message Dialog Box

5.6 Changing the Hold Music

By default, all queues will playback the system wide hold music defined by global configuration parameter “hold_music”. In some cases you may want change the hold music for an individual queue. This can be done by importing a music file (usually .wav) using the greetings dialog within Amanda Portal Station. Here is how it's done:

- Log into Amanda Portal Station as the system administrator.
- Select the queue mailbox.
- Open the greetings dialog.
- Within the greetings dialog change the MMO type to other.
- Click the “create” button to create a new mmo key called “Hold Music” (case sensitive).
- Click the “edit/review” button and then select “import” and browse to the file you want to use as the hold music for the queue and click ok to import it.
- Change the privateness to everyone, and then click ok to finish adding the new mmo key.

Figure 11 shows an example of what the hold music mmo key should look like. For this example, the .wav file to be imported was located in the root directory c:\. A description is optional.



Figure 11 Example Custom Hold Music MMO Key

Note: If using comfort messages, you don't want your hold music to be too long. Comfort messages are played after the hold music file is completely heard by the caller. For example, if your playing an initial queue greeting and using two comfort messages, when agents are unavailable, callers will hear the initial queue greeting, then the music on hold music (in its entirety) and then comfort message 1, music on hold music and then comfort message 2.

5.7 Call Time Limits. . .

Setting call time limits is optional, however, can be useful when you want to customize time related settings, or enable call escalations using colors. Each of the settings shown in Figure 12 will go into effect after the specified number of seconds (or minutes).

Using Queue Colors

After a caller has held in queue for a certain period of time, the background color of that call holding can be changed, by setting a call time limit. A typical scenario would be to use a stop light approach to calls holding in queue. Initially, when the call is queued, the background of the text of the call holding is black text on a white background. After the specified number of seconds, the background color of that call can be changed or escalated by setting the appropriate number of queue timeouts.

Minutes where n is defined by queue call times, the background color of that call can be changed to one of eight different colors. Using the stop light approach, the call would change to green, yellow, and then red after the caller has been holding for x , y , and z minutes, where x might be 1 minute, y might be 3 minutes, and 5 minutes. Figure 12 shows the queue call times dialog used to enable call time limits.

Queue Call Times

Minimum lost time: 0 second(s)

Notice queued time: 0 second(s) Color Black...

Warning queued time: 0 second(s) Color Black...

High queued time: 30 second(s) Color Green...

Urgent queued time: 60 second(s) Color Yellow...

Extreme queued time: 90 second(s) Color Red...

Maximum queue time: 0 minute(s) ☒ No queue timeout

Specific sounds can be played for each color event. The sound that is played is specified by the <color name>.wav (for example red.wav). The sound files must be located in the same directory where this application is installed.

OK Cancel

Figure 12: Queue Call Times Dialog

5.7.1 Queue Call Times Parameter Definitions:

Minimum lost time When a caller calls into the queue, and they realize they didn't want to be queued and they hang-up or dial another mailbox leaving the queue, if the number of seconds they were holding is lower than the minimum lost time, that call is not counted as a lost call.

Noticed queued time When enabled, after the specified number of seconds, calls holding in queue for that amount of time will have their background color changed to the specified color. The default is black. Click the "Color Black..." button to select a color other than black.

Warning queued time If enabled, after the specified number of seconds, calls holding in queue for that amount of time will have their background color changed to the specified color. The default is black. Click the "Color Black..." button to select a color other than black.

High queued time Is a statistical benchmark that is applied to the real-time stats by counting all the calls currently holding longer than this time- see real-time stats.

Urgent queued time If enabled, after the specified number of seconds, calls holding in queue for that amount of time will have their background color changed to the specified color. The default is black. Click the "Color Black..." button to select a color other than black.

Extreme queued time If enabled, after the specified number of seconds, calls holding in queue for that amount of time will have their background color changed to the specified color. The default is black. Click the "Color Black..." button to select a color other than black.

Maximum queued time The maximum number of minutes a caller can hold in queue for an agent. When enabled, callers who hold for the maximum queue time will be sent to voicemail to where they can record a message. The default is 0 minutes (which is no queue timeout). To enable the maximum queued time you must un-check the no queue timeout check box.

No queue timeout When checked, there is no queue timeout. Callers can hold in queue indefinitely. Un-checking no queue timeout will enable the maximum queued time field where a maximum queue time can be specified in minutes.

Important Note: Each queue time parameter can be used individually. However, when enabling more than one queue time parameter, each setting has a priority level, and must have a value greater than the queued time above it, and less than the queued time parameter below it. Figure 12 shows an example using high, urgent, and extreme queue times illustrating this behavior using a stop light model (green, yellow, and then red).

The color selection can be used to set the background color for calls holding in queue to any of the following colors shown in Figure 13.

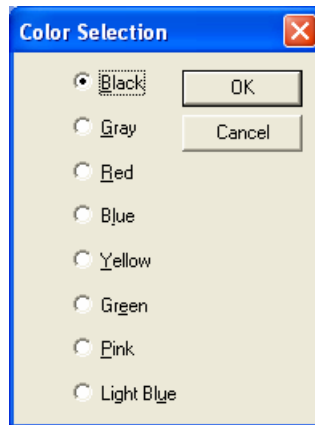


Figure 13: Color Selection Dialog

5.7.2 Using Color Designated Sound Files

When using call time limits with colors, agents can configure different .wav files to be played when those call time limits are reached (when the colors change). This is done by recording custom sound files using the <color name>.wav naming convention (for example red.wav). Or by copying and renaming existing .wav files into CallQ Agent's install folder (c:\amagents by default).

For example if using the colors green, yellow and red, an agent can create sound files called green.wav, yellow.wav, and red.wav and copy those files into the CallQ Agent's install folder (c:\amagents). When the background color of a particular call changes, and if the appropriate <color name>.wav file exists in the install folder the file will be played to the agent over their PC speakers.

5.8 Internet Call Settings

Internet call settings are used to enable advanced features such as voicemail, fax, email, and instant message enqueueing (IM). Before agents can use any of these features, the Amanda Portal system administrator must run Configure, Amanda Portal Station, and CallQ Agent setting the appropriate configuration options within each application. To access Internet Call Settings, click on the Queue Menu => Queue Settings => Internet Call Setup. This will open the Internet Call Setup dialog shown in Figure 14.

Figure 14: Internet Call Settings Dialog

To enable any of the advanced enqueueing methods see sections 5.51-5.54. The following list defines what the parameters within the Internet Call Settings are used for.

Internet Call Setting Parameter Definitions

Web Server Address Web address of the Amanda Portal Server. This parameter is read only and must be defined within Configure `www_server_addr`.

Archive Email Address Email address where to log interactions. A copy of every communication is emailed to the specified address. This parameter is optional.

Enable enqueueing IM This box must be checked to enable instant message enqueueing.

Temp IM Mailbox Enter a temporary mailbox to be used for IM related tasks. This mailbox must have its password set to 997.

IM Display Label The instant message display label is used to customize the tag line below the Portal IM Service title in the web page seen by the IM users. It completes the sentence "Using instant messaging to connect to...<IM Display Label>".

Enable enqueueing Fax Used to enable fax message enqueueing. You must define a temp fax mailbox to use this feature.

Temp Fax Mailbox Enter a temporary mailbox to be used for fax related tasks.

Enable enqueueing Voicemail Used to enable voicemail enqueueing.

Enable enqueueing Email Used to enable email enqueueing. A temp email mailbox must be defined to use this feature.

Temp Email Mailbox Define a temporary mailbox to be used for email related tasks.

Email POP3 Server Address of the POP3 email server.

Email POP3 Account Email account that Amanda Portal will enqueue email messages from.

Email POP3 Password The Email Password for the POP3 email account.

Electronic Signature Used for email and fax replies.

Queue Reply Email Address The reply to email address.

5.8.1 Enabling Voicemail Enqueueing

To enable voicemail enqueueing the Amanda system administrator must perform the following steps:

Using Configure

1. The global parameter `tcl_source_files` must include “voice_enqueue.tcl” and “email_enqueue.tcl” (case sensitive, without the quotes).
2. The global parameter `www_server_addr` must be defined. Typically, the value is set to “http://Amandaserver”, the IP address of the Amanda Portal PC, or the web address.

Using Amanda Portal Station:

3. Login as the system administrator (mailbox 999) and assign the queue mailbox the notify record privilege.

Note: If you were logged into the queue prior to enabling the notify record privilege you must logout of the queue and log into the queue again before you can enable voicemail enqueueing within the internet call setup.

Using CallQ Agent: Internet Call Setup

4. Login as the queue administrator. Open the queue menu and click on queue settings, and then internet call settings. Within the internet call settings dialog, enable the checkbox that says “enable enqueueing_voicemail”.
5. Optionally you can enter an archive email address to log transactions. However, you must enable SMTP (outgoing email) settings within Configure to do so. These settings include `smtp_server`, `email_user`, and `email_password`.

CallQ Agent Users: Setting the Application Pipe

6. CallQ agent users must set the application pipe parameters by clicking on the queue menu and then “application pipe...”. The application parameter must be set to the web browser of their choice. A web browser is used as the interface to handle voice messages, faxes, emails, and instant messaging call types. A typical value for the application parameter would be:

C:\Program Files\Internet explorer\iexplore.exe. (for Internet Explorer)

or

C:\Program Files\Mozilla Firefox\firefox.exe (for Mozilla Firefox)

7. Remove the caller id passed parameter and add a new custom parameter called “url” (case sensitive, without the quotes).
8. Finally, make sure “execute when the call is transferred to the agent” is selected.

5.8.2 Enabling Fax Enqueuing

To enable fax enqueuing the Amanda system administrator must perform the following steps:

Using Configure

1. The global parameter `tcl_source_files` must include "fax_enqueue.tcl" and "email_enqueue.tcl" (case sensitive, without the quotes).
2. The global parameter `www_server_addr` must be defined. Typically, the value is set to "http://Amandaserver", the IP address of the Amanda Portal PC, or the web address.

Using Amanda Portal Station:

3. Login as the system administrator (mailbox 999) and assign the queue mailbox the create mailbox, notify record, and method edit privileges.
4. Using the immediate descendants dialog, make sure the total number of mailboxes left to create for the queue mailbox is > 0. Advanced features such as fax, email, or IM enqueuing all require that the queue mailbox can create temporary mailboxes for each respective feature. If you're planning on using all 3 features set the maximum number of mailboxes allowed to 3.

Note: If you were logged into the queue prior to making the changes above you must logout of the queue and log into the queue again before you can enable fax enqueuing.

Using CallQ Agent: Internet Call Setup

5. Login as the queue administrator and attach to the queue. Open the queue menu and click queue settings, and then internet call settings. Within the internet call settings dialog, enable the checkbox that says "enable enqueuing fax".
6. Set the temp fax mailbox to a mailbox number that does not exist (the temp mailbox will be created by the queue mailbox when the changes are applied). This can be any mailbox number.
7. Optionally, you can enter an archive email address to log transactions too, but if you do you must enable SMTP settings within Configure for `smtp_server`, `email_user`, and `email_password`.
8. Optionally, you can define an electronic signature that will be used for email and fax replies.

CallQ Agent Users: Setting the Application Pipe

9. CallQ agent users must set the application pipe parameters by clicking on the queue menu and then "application pipe...". The application parameter must be set to the web browser of their choice. A web browser is used as the interface to handle voice messages, faxes, emails, and instant messaging call types. A typical value for the application parameter would be:

C:\Program Files\Internet explorer\iexplore.exe. (for Internet Explorer)

or

C:\Program Files\Mozilla Firefox\firefox.exe (for Mozilla Firefox)

10. Remove the caller id passed parameter and add a new custom parameter called "url" (case sensitive, without the quotes).
11. Finally, make sure "execute when the call is transferred to the agent" is selected.

5.8.3 Enabling Email Enqueuing

To enable email enqueuing the Amanda system administrator must perform the following steps:

Using Configure

1. The global parameter tcl_source_files must include "email_callout.tcl" and "email_enqueue.tcl" (case sensitive, without the quotes).
2. The global parameter www_server_addr must be set to Amanda Portal PC's web address. On the local network, this can be http://computername or http://ip_address. Typically for turnkey Amanda systems this value is set to http://Amandaserver.
3. The default SMTP parameters must be defined. These parameters include smtp_server, email_user, and email_password (similar to other email clients).

Using Amanda Portal Station:

4. Login as the system administrator (mailbox 999) and assign the queue mailbox the create mailbox privilege, notify record privilege, and auto schedule privilege.
5. Using the immediate descendants dialog, make sure the total number of mailboxes left to create for the queue mailbox is > 0. Advanced features such as fax, email, or IM enqueuing all require that the queue mailbox can create temporary mailboxes for each respective feature. If you're planning on using all 3 features set the maximum number of mailboxes allowed to 3.

Note: If you were logged into the queue prior to making the changes above you must logout of the queue and log into the queue again before you can enable fax enqueuing.

Using CallQ Agent: Internet Call Setup

6. Login as the queue administrator and attach to the queue. Open the queue menu and click queue settings, and then internet call settings. Within the internet call settings dialog, enable the checkbox that says "enable enqueuing email".
7. Set the temp Email mailbox to a mailbox number that does not exist (the temp mailbox will be created by the queue mailbox when the changes are applied). This can be any unused mailbox number.
8. Optionally, the archive email address and queue reply to email address can be defined to log transactions and set the email from address.
9. Optionally, the electronic signature can be set (used for email and fax replies).

10. Define the Email POP3 Server, Email POP3 Account, and Email POP3 Password with a valid email server address, email account and password. By default CallQ Agent will pop email off the defined POP3 server every 5 minutes.

CallQ Agent Users: Setting the Application Pipe

11. CallQ agent users must set the application pipe parameters by clicking on the queue menu and then “application pipe...”. The application parameter must be set to the web browser of their choice. A web browser is used as the interface to handle voice messages, faxes, emails, and instant messaging call types. A typical value for the application parameter would be:

C:\Program Files\Internet explorer\iexplore.exe. (for Internet Explorer)

or

C:\Program Files\Mozilla Firefox\firefox.exe (for Mozilla Firefox)

12. Remove the caller id passed parameter and add a new custom parameter called “url” (case sensitive, without the quotes).
13. Finally, make sure “execute when the call is transferred to the agent” is selected.

5.8.4 Enabling Instant Message Enqueuing

To enable IM enqueuing the Amanda system administrator must perform the following steps:

Using Configure

1. The global parameter tcl_source_files must include and “email_enqueue.tcl” (case sensitive, without the quotes).
2. The global parameter www_source_files must include “sp.tcl” (case sensitive, without the quotes).
3. The global parameter www_server_addr must be defined. Typically, the value is set to “http://Amandaserver”, the IP address of the Amanda Portal PC, or the web address.

Using Amanda Portal Station:

4. Login as the system administrator (mailbox 999) and assign the queue mailbox the create mailbox privilege, notify record privilege.
5. Using the immediate descendants dialog, make sure the total number of mailboxes left to create for the queue mailbox is > 0. Advanced features such as fax, email, or IM enqueuing all require that the queue mailbox can create temporary mailboxes for each respective feature. If you’re planning on using all 3 features set the maximum number of mailboxes allowed to 3.

Note: If you were logged into the queue prior to making the changes above you must logout of the queue and log into the queue again before you can enable fax enqueuing.

Using CallQ Agent: Internet Call Setup

6. Login as the queue administrator and attach to the queue. Open the queue menu and click queue settings, and then internet call settings. Within the internet call settings dialog, enable the checkbox that says "enable enqueueing IM".
7. Set the temp IM mailbox to a mailbox number that does not exist (the temp mailbox will be created by the queue mailbox when the changes are applied). This can be any mailbox number.
8. The temp mailbox must have a password of 997.
9. Optionally an archive email address can be defined to log transactions between callers and agents during the IM sessions.

Note: If you do define an archive email address you MUST define valid SMTP settings within Configure for smtp_server, email_user, and email_password.

10. The main link for customers to initiate IM sessions is:

`http://Amandaserver/PortalIM?mailbox` (case sensitive)

Note: Replace the word mailbox with the actual queue mailbox number. If customers are connecting to the Amanda Portal via the internet you must replace "Amandaserver" with that web address.

11. Optionally you can have the extended mailbox setting PRE_QUEUE_METHOD_IM set for the queue mailbox to obtain custom information about the IM session to setup a variable named: session_context(custom_info) to pass on with the enqueued 'IM' call.

CallQ Agent Users: Setting the Application Pipe

12. CallQ agent users must set the application pipe parameters by clicking on the queue menu and then "application pipe...". The application parameter must be set to the web browser of their choice. A web browser is used as the interface to handle voice messages, faxes, emails, and instant messaging call types. A typical value for the application parameter would be:

C:\Program Files\Internet explorer\iexplore.exe. (for Internet Explorer)

or

C:\Program Files\Mozilla Firefox\firefox.exe (for Mozilla Firefox)

13. Remove the caller id passed parameter and add a new custom parameter called "url" (case sensitive, without the quotes).
14. Finally, make sure "execute when the call is transferred to the agent" is selected.

5.8.5 Using Voicemail Enqueueing

When voicemail enqueueing is setup properly, messages received in the queue mailbox will become enqueued after 1 minute. Making messages available to the

next available agent. Messages are distributed to agents the same way calls are. Figure 15 below shows an example of what an agent will see once connected to an enqueued message.

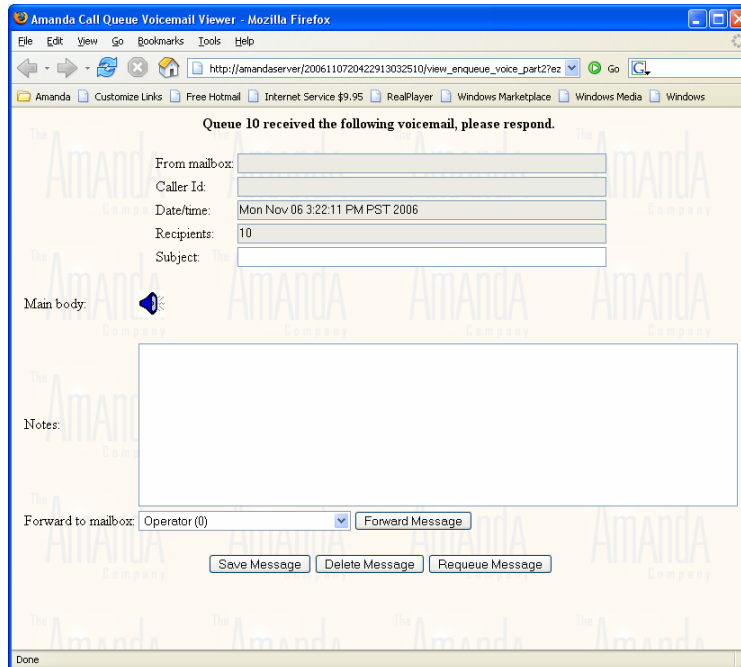


Figure 15: Example Voicemail Enqueued Message

Agents who are connected to voicemail enqueued messages can do the following:

- Listen to the message (if they have a sound card and speakers or a headset) by clicking on the speaker icon.
- Set a subject entering some text for later review. For example, you could enter the caller's name, company name, and callback number.
- Enter some information about the caller in the notes field.
- Forward the message to another user.
- Save the message for later review. Delete the message.
- Re-queue the message.

Note: Text entered in the subject field and notes fields is only saved when the message is saved. Text entered into those fields is not saved if you choose to re-queue the message.

5.8.6 Using FAX Enqueuing

To use fax enqueuing, fax calls must be directed to the temp fax mailbox. This can be done either using a DID number and integration setting the RNA method of the temp fax mailbox to loop back to itself or by designating a menu to reach the temp fax mailbox and telling the callers to press that menu to send a fax.

Otherwise, if faxes are sent directly to the queue mailbox, they will be enqueued as fax messages and not faxes.

When faxes are received, they are enqueued after 1 minute appearing in the queue as a “fax” under the port column. Agents can accept the fax call, view the fax and enter a textual response to be faxed back to the sender of the fax by clicking “reply to fax”.

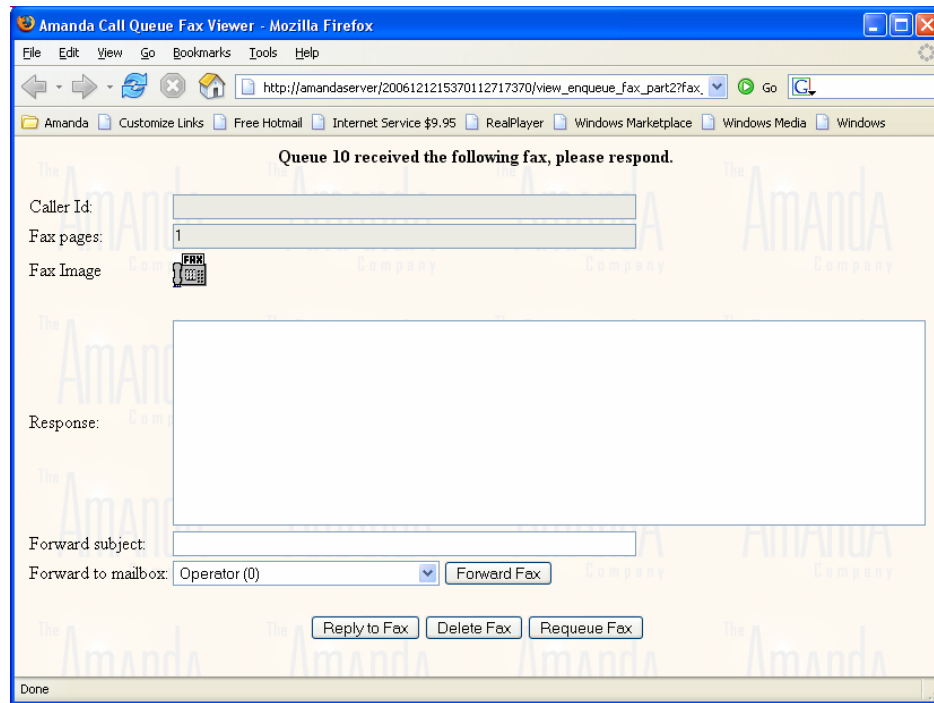


Figure 16: Example Fax Enqueued Message

Agents who are connected to enqueued fax messages can do the following:

- Click on the fax icon to view the fax using the default Windows .tiff file viewer.
- Reply to the fax by entering text in the response text box and clicking the “Reply to Fax” button. The text will be faxed back to the sender’s caller id number (caller id is required to use this feature).
- Forward the fax to another mailbox.
- Delete the fax message.
- Re-queue the fax message.

5.8.7 Using Email Enqueuing

Once email enqueuing is enabled and setup appropriately, CallQ Agent will pop email off the server every 5 minutes. This can be changed by editing the auto schedule of the temp mailbox's execute every parameter. When an email enters the queue, the port status is set to "email". Agents of the queue can accept emails and send email replies using CallQ Agent. Email enqueuing is a great way to distribute departmental or group emails evenly between agents of the queue. Once an agent accepts an email call type, an email reply form will open within their web browser where they can send a reply. Figure 17 shows an example of what an agent will see once connected to an enqueued email.

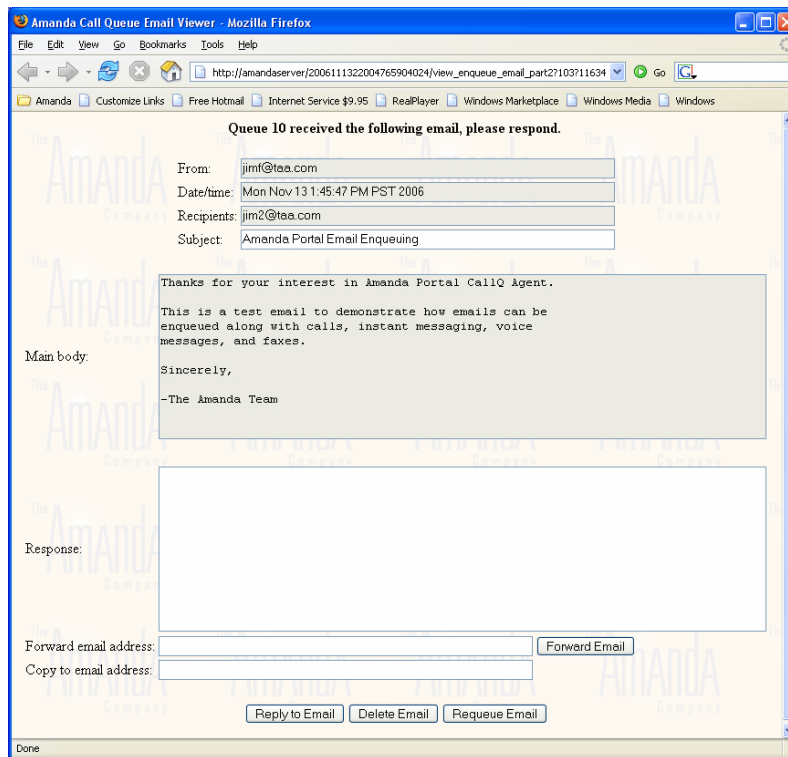


Figure 17: Example Email Enqueued Message

Agents who are connected to enqueued emails can do the following:

- Read the email.
- Send an email reply by entering text into the response box and clicking "reply to email".
- Forward the email to another email address.
- Copy the email reply to another email address.
- Delete the Email.
- Re-queue the email.

5.8.8 Using Instant Message Enqueuing (IM)

Once IM enqueuing has been setup properly, users can point their browser to the queue mailbox using the following web address. For this example, the queue mailbox is 10 (in the real world, you would put a link on your company's web site to provide customers access to CallQ Agents for assistance).

http://Amandaserver/PortalIM?10

Once connected to the server at the appropriate web address, IM users will see a dialog similar to Figure 18.

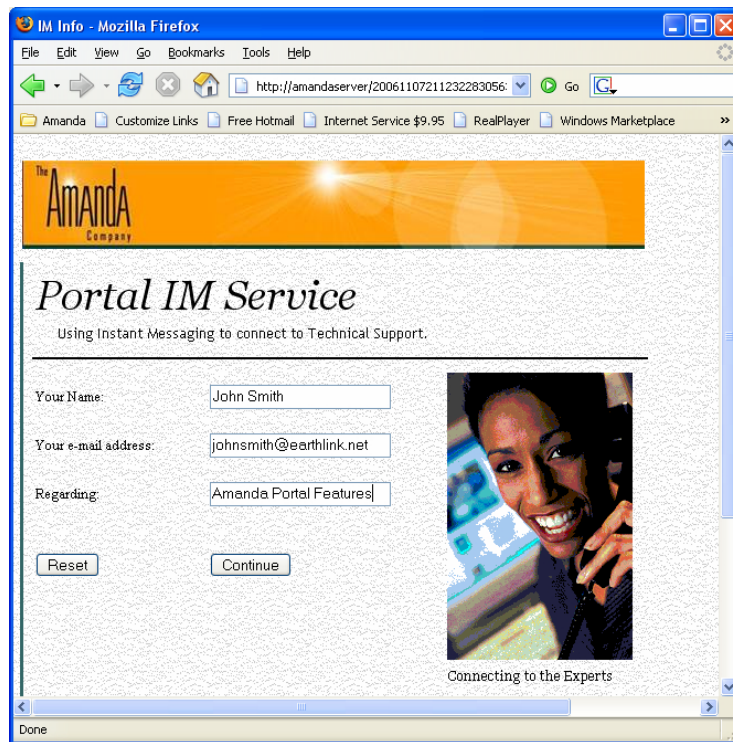


Figure 18: Sample IM Session User Screen

Users can enter their name, email address, and what their IM request is regarding. Reset will clear the values from the name, email address and regarding fields. Continue will put the user into queue for the next available agent. After clicking continue, users will be prompted to wait for the next available agent. Once an agent accepts the IM chat request, the user will have access to the IM chat window.

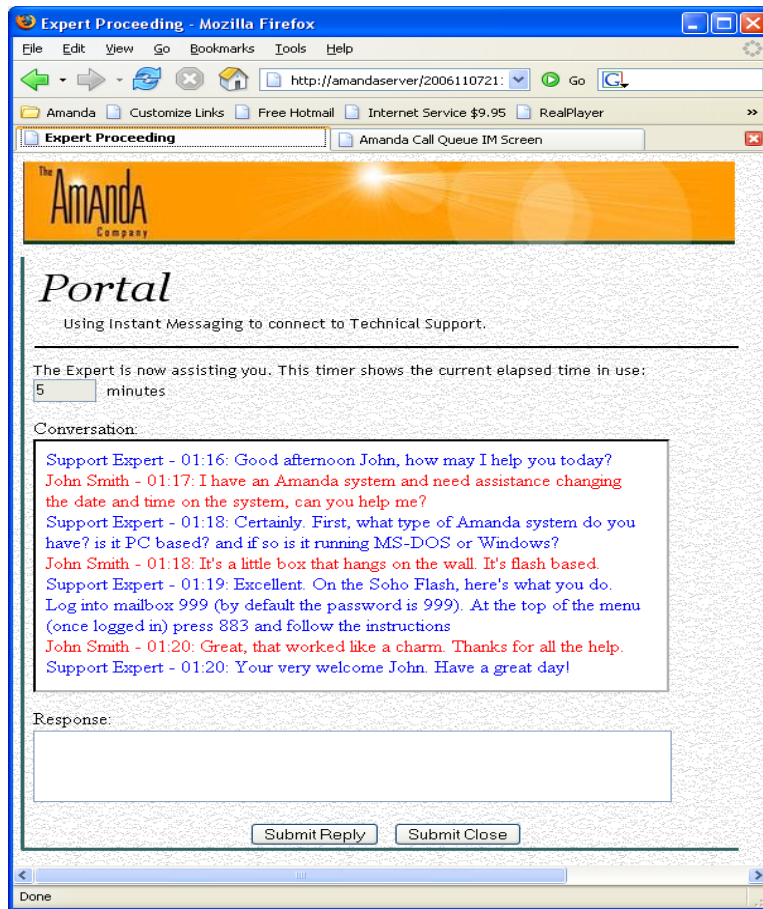


Figure 19: Sample Customer IM Chat Session Screen

Figure 19 shows an example of what a user who has been connected to an agent will see. User text is shown in red. Agent text is shown in blue. To send text to the agent all users have to do is type the text into the response window and press enter or click "Submit Reply". A user can also end the IM session by clicking "Submit Close".

Figure 20 shows what CallQ Agent users will see after connecting to an IM request from a customer. Agents enter text into the response window and press enter to send the text to the customer, or they can click submit reply. Agent text is shown in blue. User text is shown in red. An agent can also end the IM session by clicking "Submit Close".

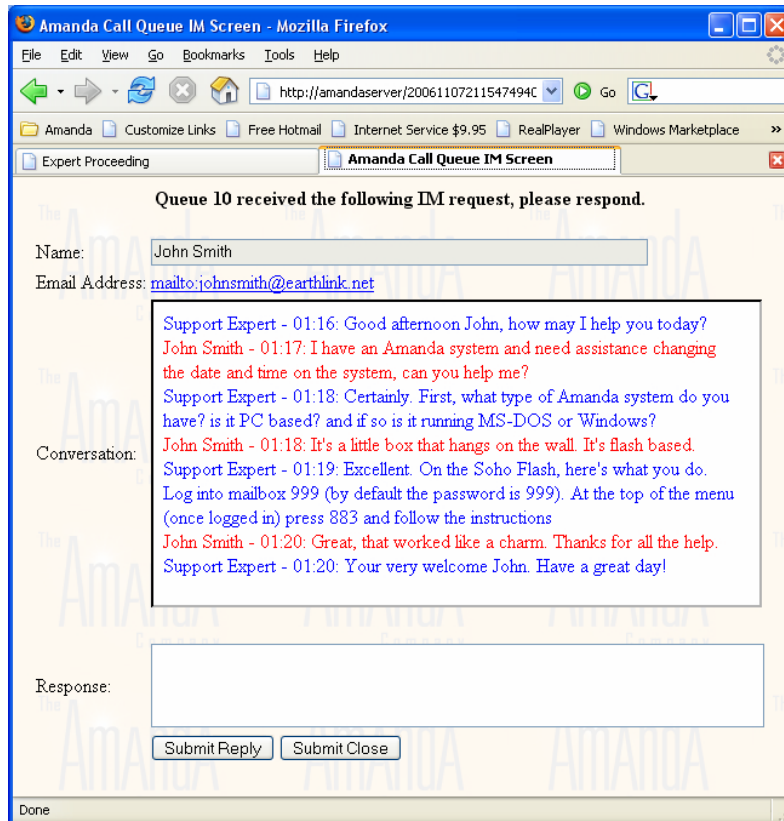


Figure 20: Sample Agent IM Screen

5.9 Display Settings. . .

The “Display Settings. . .” dialog allows you to control various aspects of how the CallQ Agent appears on your desktop. To access the display settings, click on the queue menu and then “Display Settings...”. A display settings dialog will open (as shown in Figure 21). Here you can remove or add columns, change the order of the columns, and change other aspects of the visual appearance of the CallQ Agent on your computer.

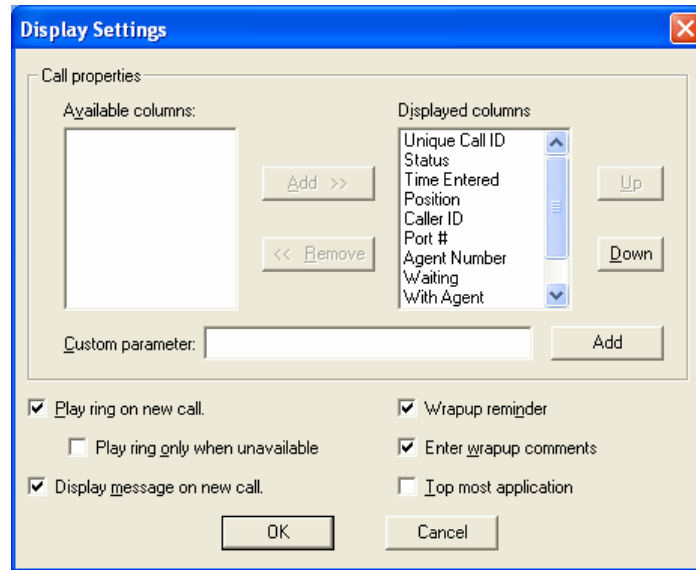


Figure 21: Display Settings

For example, if Amanda does not receive Caller ID/ANI information about calls, then you might want to remove the Caller ID column from the queue display since it will not be used. The fields and controls that appear in this dialog box are:

Play ring on new call When enabled, when a new call comes into the call queue you'll hear an audible notification that there is a call holding. If you don't wish to hear an audible notification on a new call, you can disable this option by deselecting the check box.

Play ring only when unavailable When enabled, CallQ Agent will only play an audible ring when the agent is in an unavailable state.

Display message on new call When enabled, you'll get a new call notification via a screen pop. You'll see the message shown in Figure 22 each time a new call comes into the queue.



Figure 22: New Call Notification Popup

Wrap-up reminder Used to remind agents to finish entering call information, followed by clicking wrapup.

Enter wrap-up comments If enabled after a caller is connected to an agent, a call information dialog box pops up where the agent can enter information about the call while speaking to the caller.

Top most application When enabled CallQ Agent will remain the “topmost” application on the desktop when running.

Custom Parameters This is where users can add custom column names containing additional information about the call. When you double click on the call it will popup a call properties dialog with the field names in the left column. These are the available field names that must be exactly entered in the display dialog for them to show up, if not already there. A good example of this is the custom parameter “CallerId_Name”. Adding this custom parameter will add a new column that will display the caller id name of the caller (this is case sensitive, and must be entered exactly as shown).

Note: It’s important that CallQ Agent and the Amanda Portal server be setup with the same time in order for CallQ Agent to accurately show call times when calls are in queue.

5.10 Application Pipe . . .

The application pipe can be used to send call information from CallQ Agent to another application such as a contact manager or browser. For example, the information might be used to open a customer’s contact record using the caller id or some other information entered by the caller. Using the application pipe to send the required information to a database may require custom programming depending on the information that needs to be sent and the requirements of that application.

Figure 23 shows the application pipe parameters that can be set. A description for each Application Pipe parameter follows.

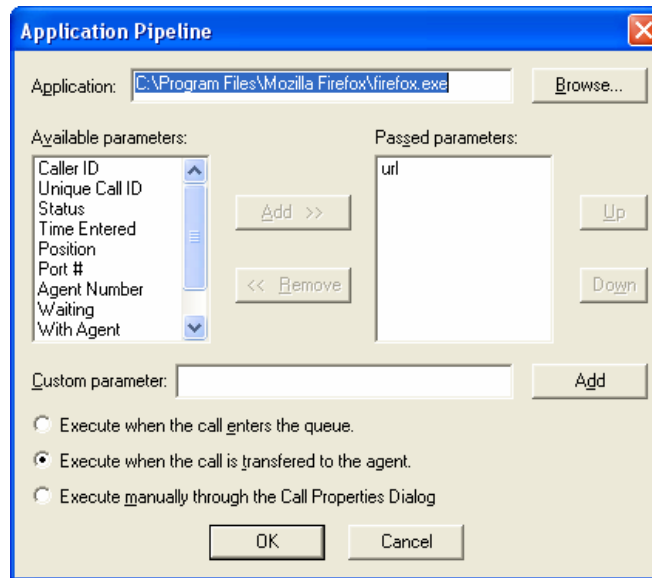


Figure 23: The Application Pipeline

Application Pipeline Parameter Definitions:

Application Defines the application that will be sent the requested passed parameter values. The application might be a contact management program such as Act! or a web browser.

Available Parameters List of parameters that can be passed to the designated application.

Passed Parameters List of selected default or custom parameters that will be passed to the designated application.

Custom Parameter Used to add new custom parameters that will be passed to the designated application. An example of a custom parameter is “url” (as shown in Figure 23). In most cases, the use of custom parameters requires custom programming to pass additional caller information obtained via TUI and IVR.

Execute when the call enters the queue When selected, the passed parameter information will be sent to the application when a call enters the queue.

Execute when the call is transferred to the agent When selected the passed parameter information is sent to the application when the call is transferred to the agent.

Execute manually through the Call Properties Dialog When selected, agents must manually select each call and click on the “application pipe” button to send the passed parameter information to the application.

5.11 Changing the Default Ring

Open Windows control panel and then “Sounds and Audio Devices”. Adjust the program event for “RingIn” within the Windows group to the .wav file of your choice. The selected .wav file will be played 6 times in a row so it should be something short such as ding.wav or tada.wav (the default is ringin.wav).

If you’re not using the default sound scheme you or have trouble adjusting the default sound you can also edit the following registry key using regedit:

HKEY_CURRENT_USER\AppEvents\Schemes\Apps\Default\RingIn\Current

And modify the current value for the default key to the .wav file of your choice. Be sure to set the full path to the .wav file if it’s not in the default media file folder.

5.12 Wrapup Comments and QCodes

Manual Wrapup

After an agent answers a call, that call is displayed in the queue (with the agent “on call”) window until the agent either clicks “Do Wrapup” or “Make Available” (if the queue is setup for manual wrapup’s and not automatic). Once an agent is connected to a caller, a caller information dialog box appears where the agent can enter comments about the call.

The creator of the queue (or a queue supervisor) can specify a maximum allowed wrap-up time for each agent, if “Allow Wrap-up time” is enabled in the queue settings. Individual agents can decide whether or not they wish to enter wrapup comments by enabling or disabling “enter wrapup comments” within their display settings.

Automatic Wrapup

If Amanda connects calls to agents via direct line (as on an MSI card), conference, or hairpin transfer, then Amanda knows when the agent hangs up, and the agent will automatically be moved into the Wrap-up state (which may immediately transition to the Available or Unavailable state, if the agent’s wrap-up time setting is zero or “enter wrapup comments” is not enabled . In such “auto-wrap-up” situations, the agent cannot press the “Make Available” or “Make Unavailable” buttons while on a call, or “Make Available” while in Wrap-up. Instead, the agent must hang up the phone, and Amanda will automatically transition the agent’s state from on call to wrapup.

The reason for this is that the agent may hang up, go into wrap-up, actually be ready for another call, and press Available; at about the same time that Amanda is automatically making the agent available. This can then result in receiving two calls, one of which of course will fail and be counted as a dropped call for the agent.

Wrapup Comments

Wrapup comments can be enabled so that agents can enter notes about who they spoke to and what the call was about. These comments can later be used when running reports. Agents can be allotted a certain number of seconds to finish entering wrapup comments by the queue administrator (by modifying agent settings). Or, given an unlimited amount of wrapup time by enabling “wrapup finished when comments are entered”.

Individual agents can decide whether or not they want to enter caller information by enabling or disabling “enter wrapup comments” within their display settings. The queue administrator can allow a maximum wrapup time for each agent in seconds if “allow wrapup time” is enabled within the queue settings, and also define the “maximum wrapup time allowed” in seconds within the agent settings.

During wrap-up, an agent can (if so privileged) click on the “Make Available” or “Make Unavailable” buttons to finish wrap-up early and move to the indicated state. Otherwise, when the maximum wrap-up time passes, the agent will automatically go back to the state they were in before taking the last call (usually, the Available state).

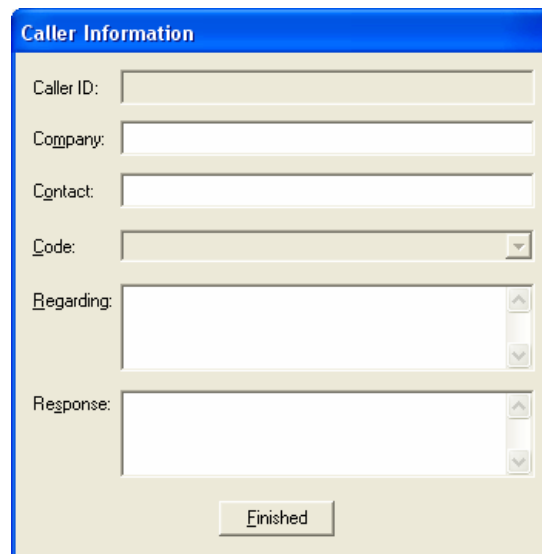
The image shows a software dialog box titled "Caller Information". It has a blue header bar. Below the header, there are several input fields: "Caller ID:" with a text box, "Company:" with a text box, "Contact:" with a text box, and "Code:" with a dropdown menu. Below these are two larger text areas: "Regarding:" and "Response:". At the bottom right of the dialog is a button labeled "Finished".

Figure 24: Example Wrapup Comments Dialog

If desired the system administrator can create a pre-entered list of codes for an agent to select from (see QCodes). The pre-entered queue codes allow for a more consistent and quicker wrapup. Queue Codes are entered within the queue mailbox as a textual memo named “QCodes” (which is case sensitive). It’s a list of code and code descriptions.

5.12.1 Setting up QCodes

As a default, the codes list is blank and ghosted out, unless the queue administrator creates a list of codes. To create a queue codes list, do the following:

- Using Amanda Portal Station, select the queue mailbox and double click greetings.
- Choose other as the mmo type and then click create.
- Enter “QCodes” (case sensitive) as the key name and optionally, enter a description.
- Click the “edit mmo” button. Check the box to enable advanced formats, and then select ASCII Text as the “From type”, then click ok.
- This will open notepad. Create a list of call types using the following format, number followed by text within curly braces, like this:

```
1 {Pre-Sales}  
2 {Placed Order}  
3 {Order Status}  
4 {RMA Status}
```

The code (such as 1, 2, or 3) doesn't have to be a number, it can be a word or words. Such as:

```
{Prospect} {Requested More Information}  
{Not Interested} {Remove from Call List}  
Etc.
```

You can create as many different queue codes as you like. The examples above work well for a sales queue.

- Save the changes to the file, and close notepad. Choose yes when prompted if you want to apply the changes.

Note: Once the QCodes list is built, when agents wrapup a call (and enter wrapup comments is enabled), they'll have access to the code choices in the “code” list, as seen in Figure 25. Selecting the drop down list the agent can select any of the other code choices within the list. Amanda saves call comment information in a database that can be reviewed later by running reports.

Figure 25: Example Wrapup Comments Dialog with QCodes Enabled

Note: A new feature has been added to CallQAgent to lookup the company name associated with a caller id if none is available. This information is looked up based on prior call records for the specific queue and assigned to the caller id name value.

5.13 Call Queue Priority...

When connecting to multiple call queues, it's important to setup a queue priority list. This way when there are calls holding in more than one queue, and you make yourself available, you'll get calls sent to you from the queue with the highest priority first. To create a call queue priority list click on the queue menu and then "Call Queue priority..." and the Call Queue Priority List dialog will be shown:

Figure 26: Call Queue Priority List

Figure 26 shows an example call queue priority list. In this example, the agent is connected to 3 queues. Queue 10 has the highest priority, then 20, and finally

30. Use the move up and down buttons after selecting one of the queues listed to set the call queue priority list.

Important Note: A call queue priority list can only be used when attaching to multiple queues. Also, once setup, the order can be changed, but the priority list itself cannot be removed without removing the agent from the queue, and then adding them again.

6 Call Queue Agent Transfer Processes

Call queue agent mailboxes can be configured to transfer calls many different ways. There are advantages and disadvantages depending on the transfer type chosen. The transfer type is configured using Amanda Portal Station within "Incoming Call Options". This section explains the differences between the transfer types and a few typical queue scenarios.

Note: These transfer types only apply to real enqueued calls. Internet type calls such as IM, Email, Voicemail, and Fax use a built in transfer type that is always auto wrapup.

Automatic Transfer When using an automatic transfer, the transfer type is adjusted based on the mailbox settings and if the call is enqueued or not. If a caller dials an agent directly by entering their mailbox number from the auto attendant, the transfer will be blind, unless features such as call screening or identify called party are enabled. Then the transfer will be supervised. Calls transferred to an agent from the queue (enqueued calls) will always be supervised because blind transfers and integration don't allow calls to be re-queued at the right spot.

Blind Transfer Causes Amanda to transfer calls to stations and releases the call. Causing the caller to lose their place in the queue if the transfer to the agent fails. This transfer type should not be used for agents of a queue.

Supervised Transfer Amanda transfers the call to the agent's extension and waits for an answer, no answer or busy. If the call is answered she connects the caller to the agent. If the call is not answered or the extension is busy, the call is re-queued in the same position. This is the most common configuration when using CallQ Agent. The advantage of using supervised transfers is that once the caller is connected to an agent the voice port that transferred the call is available to process another call.

Hairpin Transfer Only supported when using Intel/Dialogic voice boards. Amanda uses 2 ports to perform a hairpin transfer, and connects them internally. The advantage to this is that Amanda knows when the caller or agent hang-up the phone so CallQ Agent will wrapup calls automatically. The disadvantage to this transfer type is that 2 ports will be in used for the duration of the call.

Find Me/Follow Me Used to create a find me / follow me list of extensions and or telephone numbers. This transfer type is not recommended for use with CallQ Agent because it takes too long to find the agent when there is a list of numbers to try. This transfer type is only recommended when a specific port type is needed (such as VoIP or MSI).

Conference Transfer Used to create a conference transfer between the caller, called party, and Amanda. The Amanda port that performed the conference transfer stays active (monitoring) for the duration of the call. To setup this transfer type, you must specify the dial code that your telephone system uses to perform a conference on an analog voicemail port, and set it as the dl_conference value within the PBX settings.

Trunk Supervised Transfer A supervised transfer going over a trunk line, presumable because dl_dtwait is different than what is needed for the trunk vs. internal lines. In this case dl_dtwait_trunk is used.

Supervised to MSI Station Only available if using MSI cards with Amanda. Amanda Portal will perform a supervised transfer to an MSI station. When an agent finished a call, wrapup's are automatic.

Scenario 1: Supervised Transfers

In this scenario, call queue agent mailboxes are configured to perform either an automatic or supervised transfer. In either case, Amanda will supervise the call to the extension and if answered, play a connect tone and connect the caller to the extension. If the agent says "hello" after answering the call, the call is connected faster.

If the call goes un-answered or the extension is busy, the call is re-queued for the next available agent.

Note: If using call forwarding on agent extensions make sure calls are forwarded back to voicemail after a greater number of rings (or longer period of time) then Amanda will supervise the call for. For example, if Amanda supervises the call for up to 4 rings (or 16 seconds) before determining the call is not answered, make sure calls are not forwarded until after 5 or more rings (or 20 seconds) so they don't conflict. Additionally, agent extensions should not have busy forwarding enabled (this defeats the purpose of the call queue). If a call goes unanswered or the agent extension is busy the call is re-queued.

Pros: When using a supervised transfer, after the call is transferred to the agent, the voicemail port is released and available to take another call.

Cons: After an agent finishes a call, they must click the "Do Wrapup" button to clear the call from the queue before they can receive another call.

Scenario 2: Conference Transfers

In this scenario, when a call is transferred to an agent, the Amanda port does not hang-up completing the transfer. Instead, a conference call is created between Amanda, the caller, and the agent. While the caller is speaking to the agent the Amanda port monitors the call and will be released when either the caller or agent hangs up. This transfer type requires the telephone system Amanda Portal is connected too can create a conference call with an analog voicemail port.

The dial sequence to create a conference call must be defined using `dl_conference` within the PBX settings of Configure.

Pros: Calls are automatically wrapped up when either the agent or caller hang-up their telephone.

Cons: One voicemail port is in use while the agent is connected with the caller.

Scenario 3: Hairpin Transfers

When an agent mailbox is configured to use a hairpin transfer, two voicemail ports are used to make the connection between the caller and the agent. When using hairpin transfers, calls can easily be transferred to any telephone number.

This may or may not be possible using other transfer types depending on the PBX type Amanda is connected too.

Pros: Calls can be transferred anywhere.

Cons: Two voicemail ports are in use for the duration of the call.

7 Enqueued Calls

When a call becomes enqueued, the call has certain information associated to it (listed in sub-section 7.1 below). You can click on any of the column headings to sort the display by the values in column. Figure 27 shows an example of multiple enqueued calls. Figure 28 is also a good example of how call time limits and colors can be used to enhance the look and make callers holding the longest really stand out.

CallQAgent

Queue Agent Call Reports Window Help

Current Status: Unavailable Call time: 00:03 Make Available Make Unavailable Do Wrap-up Unavailable after call

Queue: Service Agent: (10) Calls: 4

CallerId_Name	Subject	With Agent	Waiting	Agent Number	Port #	Caller ID	Position	Time Entered	Status
		00:00	00:29		3	Unavailable	3	17:58:38	Available
		00:00	00:50			VoiceMail	2	17:58:18	Available
John Smith	Amanda Portal IM Features received Fax	00:00	01:13	00:00	05:28	tm	mailto:Johnsmith@stcglobal.net	1	17:57:55
						Fax		0	17:53:40

Figure 27: CallQ Agent Screenshot Example showing multiple Calls in Queue

7.1 Enqueued Call Column Definitions:

Unique Call ID Each call that enters the call queue is assigned a unique call number.

Agent Mailbox This shows the mailbox of the agent on the selected call. When a call has not been answered by an agent and is holding in queue, this field is blank. Once a queued call is connected to an agent, the ID of the agent that accepted the call is shown here until the call is cleared by clicking "Do Wrap-up" or hanging up (depending on whether the agent's telephone is connected to an Amanda port directly or to a telephone switch).

Status Shows the current state of an enqueued call. The status of each call changes depending on what is happening with the caller. For example, when a call is enqueued, the status of the call might be "Available" as shown in Figure 27. When an agent becomes available and that call is transferred to the agent the status will change and show "Connecting". Once the agent answers the call completing the call transfer to the agent, the status will change to "Connected" to reflect the caller is now connected to the agent.

Time Entered The time the call entered the call queue.

Position This shows the call position in the queue, as the number of calls ahead of that call. Thus, position 0 has the highest priority, then position 1, then 2, etc. When multiple calls are in queue, Amanda can automatically tell the caller their position in the queue. When a call is taken from, or abandons, the queue, other calls in the queue move to the next highest position in the order they are received. Each time a call moves up in position, if the queue is configured to tell callers their position, then the waiting callers will be notified of their new position.

Caller ID This column is used to display information related to the call depending on the call type. If the caller dialed in normally using a telephone line it will display the telephone number they are calling from. If they entered the queue

using an Internet call type such as Instant Messaging or Email it will show their Email address.

CallerId_Name Shows the caller id name of the caller (if one is available). This column is also used to show the name of the internet caller when using Instant Messaging chat.

Subject Shows the subject text entered by internet callers using Email or Instant Messaging chat call types.

Port # Shows the Amanda port the call came into the queue on. If the enqueued item is not a call and is another type of enqueued instance, it will show the appropriate type (such as voicemail, email, or IM).

Waiting This is the amount of time that the caller has been waiting to be connected to an agent. Once connected, the value stops incrementing but it remains to show how long that caller had to wait.

With Agent This counter will initially be zero. Once the call is connected to an agent, it will begin counting up to show the length of time that the call has been with that agent.

Preferred Agent Used to route calls to specific agents based on information entered by the caller via TUI (telephone). Custom programming utilizing database lookup or IVR information is required to use this feature. The IVR application would determine the agent best able to handle the caller based on previous call history or other information entered by the caller.

Callback In some cases callers may not want to hold in queue for an agent and instead would like an agent to call them back when available. Using the callback feature is an efficient way to do this. There are two types of callbacks supported by CallQ Agent. Manual callbacks, and hang-up callbacks. To use this feature you must record a greeting or comfort message telling the caller how to use this feature. Including this information in a comfort message is a great way to do this. For example, you might record comfort message 1 stating "All agents are still busy assisting other customers, to leave a message for an agent to call you back press *, or if you would like an agent to call you back when available without recording a message press # and follow the instructions. We appreciate your patience".

1) Manual Callbacks

(q_allow_callbacks 1)

Once enabled, a caller can press # to choose to be called back when an agent becomes available keeping their position enqueued. After pressing #, the caller will be prompted "to-re-enter your phone number press 1, to cancel the page press 2, or to send the page press 9". If the caller presses 1, they can enter a different phone and will be called back at that number when an agent is available. They can press 2 to cancel and go back to the queue, or pressing 9 will keep them in their current position and they will be called back their current caller id number. This feature uses a hairpin transfer to do the callback and will play the transfer greeting to the agent when connecting them to the caller.

2) Hang-up Callbacks (q_allow_hangup_callbacks 1)

To enable automatic hang-up callbacks run configure and change the default value from 0 to 1. When this feature is enabled, if a caller hangs up before being connected to an agent, instead of their call being removed from the queue, it will remain enqueued and when an agent becomes available, the caller will be called back at that number. This feature uses a hairpin transfer to do the callback and will play the transfer greeting to the agent when connecting them to the caller.

Through custom programming, Amanda can be configured to allow callers to hang up while still retaining their position in the queue. When they do so, their queue “object” enters the “callback” state and it retains the phone number at which to call them. When the callback object reaches the top of the queue, Amanda will first call the selected agent, then automatically call the original caller and connect the two parties.

Once an agent attaches to a queue, the Queue menu will change to allow the agent to select queue and display settings, which are described in section 8.2.

8 Agent Menu Options

From the “Agent” menu, you can choose “Agent List. . .” or “Agent Settings. . .” menu choices, which pop up related dialog boxes, as shown in Figure 28, and Figure 29.

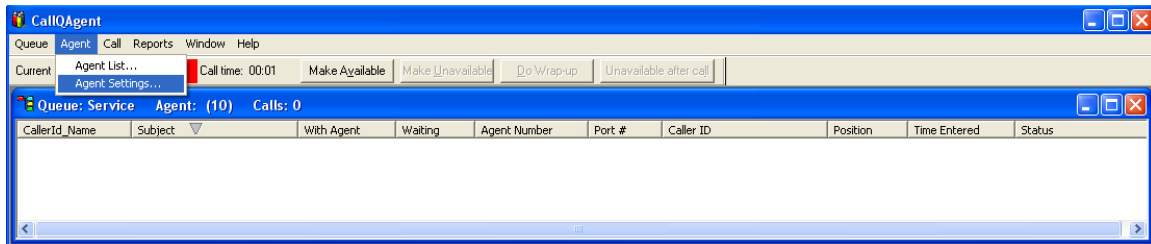


Figure 28: Agent Menu

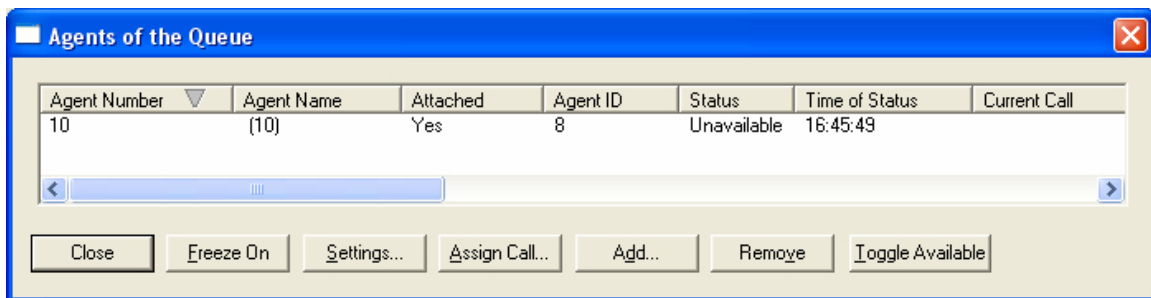


Figure 29: Agent List Dialog

8.1 Agent List. . .

The “Agent List. . .” selection shows you the list of agents for that call queue. Here you can add or remove agents from the queue. You can also modify settings on a per-agent mailbox basis. Clicking “Agent” then “Agent List. . .” opens a window similar to that shown in Figure 29. The following section explains what each setting is used for.

8.1.1 Agent List Column Definitions:

Agent mailbox Lists all agent mailboxes that are members of the call queue, whether logged in or not.

Agent name Shows the matching name of the mailbox.

Attached Shows whether each agent is currently attached to this call queue.

Agent ID Shows a unique identifier for each agent who is currently attached to the queue. An agent must be attached to the queue or you will not see an Agent ID number for that agent.

Status Shows the current status of the agents. Available means they're ready to accept a new call from the queue. Unavailable means they are either on an existing call, in the unavailable state, or not currently attached to the queue.

Time of Status The time that the last status change occurred for an agent.

Current call If an agent is currently on a call, this shows the unique Call ID of the call the agent is connected to.

Available privilege Shows if an agent can become unavailable. If enabled, the agent can make themselves unavailable (and available). Otherwise, the agent is considered always available.

Call assignment privilege Shows if an agent can take calls out of order or direct calls to other agents.

View privilege Allows an agent to see all call queue activity. If an agent doesn't have this privilege they can only see calls that are connected to them.

Rejection privilege Shows if an agent mailbox has the reject call privilege, if enabled, when an agent gets a call the call assistant dialog will popup giving the agent a last chance to accept, reject, transfer or send the call to voicemail.

Wrap-up time Shows the amount of time in seconds allowed to wrap-up an active call. If set to 0 seconds, then wrap up is not an option for this agent.

Rejection time Shows the maximum amount of time allowed for an agent to Reject a call if call rejection is enabled. After this time, if the agent has not responded, then the call will automatically be rejected. A value of zero means that the agent will not have an opportunity to reject calls.

Restrictions Shows the skills assigned to specific agent mailboxes. Agents without special skills listed are assumed to be able to take calls that do not have any special skill requirements.

Supervisor Shows if the agent is a supervisor.

Priority Level Shows the priority level of each agent. Agents with the highest priority get calls transferred to them first (0 is the highest priority, then 1, 2, etc.).

Reports Privilege Shows if agents have the ability to run reports or not. When set to 0, this privilege is disabled.

8.1.2 Agent List Button Definitions:

Close This button closes the agent list window.

Freeze on Freezes the automatic updates of the screen.

Settings This button allows the call queue administrator (the creator of the call queue) or a queue supervisor to modify agent settings on a per-agent basis. An example of the resulting pop-up dialog box is shown in Figure 31, and it's discussed in Subsection 8.2.

Assign Call This button allows agent's with the call assignment privilege to manually assign calls to agents who are logged into the queue but not currently on a call. Send the caller to voicemail, play a custom hold message to the caller keeping the call enqueued, or transfer the call to another mailbox. The call assignment dialog is shown in the Figure 30:

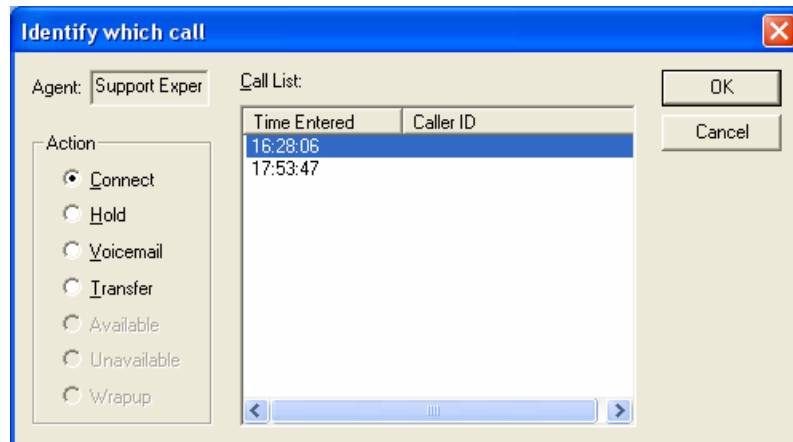


Figure 30: Assign Call Dialog

Add Used to add new agent mailboxes to a call queue. Only the call queue administrator (the creator of the queue) or a supervisor can add agents to the queue. Clicking add will open the mailbox list, select the mailbox you wish to add from the list. A mailbox that has been added to a call queue is called an agent. Once mailboxes are added to the queue, the agents can attach to the queue.

Remove This button is used to delete the selected agent mailbox from the call queue. You must be the call queue administrator or supervisor in order to do this.

Toggle Available Supervisors can use the toggle available button to change the status of an agent. Making unavailable agents available and vice versa.

8.2 Agent Settings. . .

Each member of the call queue can have different settings for their mailbox. The queue administrator, or a queue supervisor determines these settings. Figure 31 shows an example of the Agent Settings dialog.

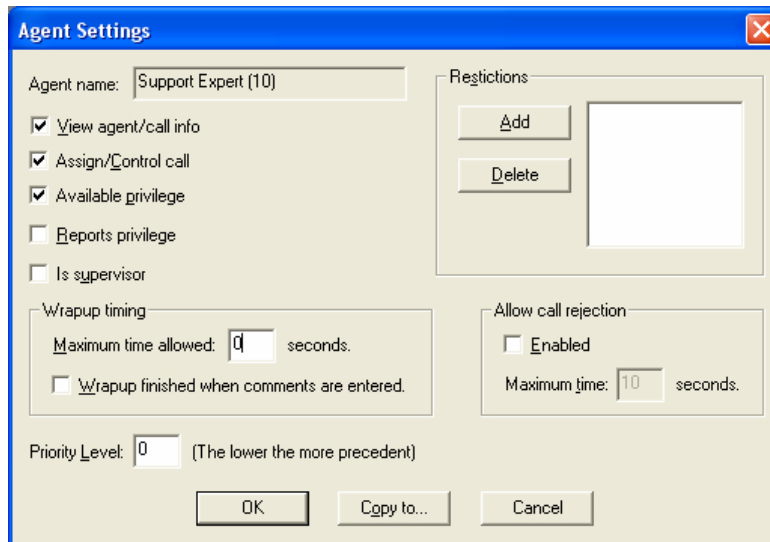


Figure 31: Agent Settings Dialog

Note: Before an agent can accept a call from the queue, the queue administrator must enable appropriate settings for that agent. Agents with no settings enabled will automatically be assigned calls from the queue.

Tip: Typical agent settings are View agent/call info, Assign/Control call, and Available privilege.

8.2.1 Agent Setting Definitions:

View agent/call info Allows an agent to view call and agent activity. Agents without this privilege will not see calls that enter the queue.

Call Rejection When call rejection is enabled, then that agent will have the right to refuse to take particular calls that the queue assigns to them.

Assign/Control call When enabled, this option gives the agent the ability to assign calls to themselves or to other available agents regardless of the call's position in the queue. An agent who has been working with a particular customer on a problem may use this. When the agent sees that customer has called in again (by the displayed Caller ID), they can take the call right away so that the customer can continue working with the same agent on the problem.

Available privilege When enabled, this option gives the agent the ability to control their "available" status. When disabled, attached agents are always considered to be available, unless already on a call.

Reports privilege When enabled, this option provides the specified agent the ability to run call reports.

Is supervisor A supervisor has all the privileges of the queue administrator except they can't create or delete the queue. Supervisor's can add or remove agents, change agent settings, run all reports, and assign calls to agents. Unlike

the queue administrator, queue supervisors cannot make themselves available since they're not a real agent (i.e. they're a supervisor). Supervisors can only take calls selectively.

Maximum wrap-up time allowed This is the maximum number of seconds that can elapse once the "Do Wrap-up" button is selected. If in auto wrapup mode, then there is no button to select, but this time still applies.

Wrapup finished when comments are entered Selecting this option will provide agents who are allowed to enter wrapup comments an unlimited amount of time to finish entering wrapup comments.

Maximum time to accept/reject calls This is the number of seconds the agent has to determine whether or not to accept or reject a call that's being assigned to them, if they have the Rejection privilege for this queue.

Priority Level Each agent can have a priority level. Priority levels can be used to determine which agents will get calls sent them first when multiple agents are available and call, voicemail, email, fax or instant message enters the queue. Priority levels are set from lowest to highest (with 0 being the highest priority level). When priority level is not set, all agents have the same priority level.

Copy to... Used to copy queue settings from one agent to another. The queue supervisor can save a lot of time by setting up one agent's settings and then copying those settings to all the other agents. Changes to agent settings won't be active until the agent detaches and re-attaches to the queue (if the agent was already attached). Otherwise the new agent settings will be active the next time they attach to the queue.

Restrictions A particular call may require certain skills of the agent. For example, the caller may have expressed through an IVR interaction that he can speak only Spanish. The agent can have corresponding skills listed, so calls can be routed appropriately. The restrictions are free form text, but must match exactly to all of those required by a call, case sensitively. If a caller requires skills which no currently attached agent possesses, then the call will not be allowed to enter the queue and will then usually go to voicemail. Similarly, if a call is already in queue and the last agent who possesses skills needed for that call logs out, then the call will fall out of the queue and again go to voicemail. If there aren't any agents logged into the queue, then calls cannot enter that queue and will go to directly to voicemail.

8.3 Enabling the Call Record Feature

Call Queue Agent can be used to record calls only if the telephone system Amanda Portal is connected to supports call monitoring (dialing a DTMF code to "listen in" on a conversation).

To enable call recording do the following:

- 1) Run Amanda Portal's configuration utility "Configure" and add "record_port.tcl" to the global configuration parameter "tcl_source_files".

2) Create new configuration parameter “dl_listen” under the PBX configuration parameters. This parameter sets the token sequence to be dialed to listen in on the conversation. For example, if you have a Panasonic DBS the “dl_listen” value is “%V,4,”. Make sure your phone system can perform call monitoring by testing the code manually from a voicemail port to make sure you have the correct code before defining “dl_listen”.

Important Note: %V must be used and NOT %E to specify the extension number.

3) You must tell Amanda which ports will be used to perform the call recordings by specifying “record” under the port parameters “groups” list. At least one port must be set to “record” in order to use this feature (preferably more than 1).

8.3.1 Using the Call Recording Feature

To record a call within CallQ Agent, double click on the call to record. There is a “Record Call” check box at the bottom of the dialog that pops up. When checked Amanda uses a record port to dial the “dl_listen” code and the call will be recorded. Un-checking call record will stop the recording. If a recording is made then a dialog will pop up to prompt for additional text notes to be entered with the recording. Finally, the recording will be sent as a message to oneself.

Supervisors can record other agent’s calls. A call can be marked for recording before actually taking the call, the recording starts when the caller and agent are connected. An agent can only record his or her own calls.

Note: Amanda uses an extra port for each call recording. Make sure Amanda Portal has enough ports to handle the call volume (assign at least 2 ports to “record” or there may not be enough ports setup to record calls simultaneously).

9 Call Menu Options

From the “Call” menu, you can click “Take Call. . .” or “Print Call”. You can also double click on the call itself to open the call settings dialog. This gives you an advanced set of options when working with a queued call. When a call is active, besides clicking on the call and choosing to take call, you can find out more information about the call. Double clicking on a call will pop up a dialog for the “Call Settings” similar to that shown in Figure 32. This dialog shows the call’s unique Call ID, Caller ID associated with the call if available, the time the call entered the call queue, the port the call is holding on, the status of the call, the position in queue, who’s on the call if an agent is already handling it, and what restrictions (skill requirements), if any, are applied to the call.



Figure 32: Call Settings Dialog Box

The Timeout field shows the accept/reject time in seconds to determine what to do with the call if the call has just be assigned to the agent and the agent has the “Call Rejection” privilege. With this dialog, you can choose to do the following:

Close This button closes this dialog without taking any action.

Accept This button connects the caller to the agent.

Note: Agents can accept only one call at a time. However, agents can connect any other type of enqueued assistance request including voicemail, faxes, emails, or IM while connected to a caller. So effectively, an agent can handle a call, instant message, email or voicemail at the same time.

Hold Plays a custom hold greeting (if recorded and defined) within the greeting dialogue, keeping the caller in the queue.

Voicemail Queue This button transfers the caller into voicemail for the queue mailbox.

Voicemail Mailbox Transfers the caller directly to voicemail for the specified mailbox (other than the call queue mailbox).

Transfer Agent This button transfers the caller to extension of the specified agent. A dialog similar to that shown in Figure 33 will pop up allowing the agent to select whom to transfer the call to. Only Available agents will be listed, since you cannot transfer a call to an agent who is already on a call. Note that you can send a call to an agent who is in the Unavailable state.

Transfer Mailbox This button transfers the caller to the selected mailbox. When using this option, the caller will be sent to that mailbox as if they dialed it directly.

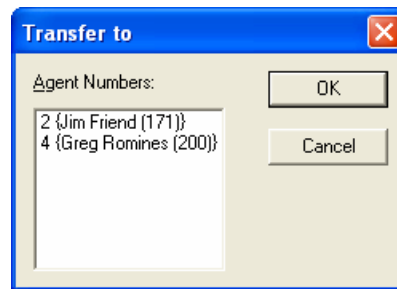


Figure 33: Example of the Transfer Call dialog box

Application Pipe Transfers call information to the application defined as the application pipe the queue menu (application pipe...).

Play Caller Name When call screening is enabled, the play caller name button can be used to hear the recording made by Amanda when screening the call. This feature is not typically used with call queues, but can be very useful when using a personal queue.

Record Call When enabled, checking the record call box will record the conversation as a message and store it in the agent's mailbox. See enabling the call record feature in section 8.3 for more information.

Timeout Shows the amount of time the agent has to accept or reject the call. This timer is only active if the agent has the call rejection privilege enabled.

10 Reports Menu Options

The Reports menu gives queue supervisors, administrators, and agents with the reports privilege access to a number of different types of call queue reports. Reports can be run by day, week, month, or year. The reports fall into four basic categories, which are the initial menu items displayed:

Calls. . . Call reports can be any of three sub-reports: Incoming Calls, Call Duration, and Lost Calls.

Caller ID. . . This report lets you search for calls from a specific phone number during a specified period of time.

Agents. . . Agent reports can cover the activities of a specific agent, or they can cover general activities for all agents of the queue.

Call List. . . Call list reports can cover specific agents, all agents, or dropped calls.

Print. . . Used to print CallQ Agent reports.

Print Preview. . . Used to preview CallQ Agent reports before printing.

Save Detail Data Saves the details of the report in an ASCII coma delimited text format (as a CSV file).

Save Graph Data Saves the details of the graph report in an ASCII coma delimited text format (as a CSV file).

Launch CSV app . . . Takes the current report and places it in a CSV viewing application such as Microsoft Excel.

In all cases, you specify the period of time that you want the report to cover. You can use short-cuts for the time period, such as specifying “Today” or “Yesterday,” for instance, or choose “Custom” and then enter manually the exact starting and ending dates and times for the report.

Most reports also let you aggregate, or summarize, the data based on time intervals. For example, if you request an Incoming Calls report by hour, then the call data for each hour of the day will be summarized and displayed. If the period of the report is yesterday and today, then the data shown for 10:00 will be a sum of the call activity during the 10 o'clock hour yesterday plus that for today. You can also summarize data by the day of the week, by the day of the month, or by month.

Once you have run a report, you can use the Reports menu choice to Print the report, or to save the report's contents as a comma-delimited ASCII file. Some reports have two sections, a data section and a graphical section. For instance, the Lost Calls report includes a bar graph showing the number of calls that hung up after a given amount of waiting time, in half-minute (30-second) increments. Figure 34 shows the Detail portion of a Lost Calls report, while Figure 35 shows the graphical portion of the same report. Using the Reports menu, you can separately save the data underlying the graphical portion of the report.

Time	Offered	Lost Calls	% Lost	Ave Lost Delay	Max Lost Delay	Hangups	Queue Full	Voicemail	Dialed Out	Timed Out	No Agent Skills
00:00	0	0	0	00	00	0	0	0	0	0	0
01:00	0	0	0	00	00	0	0	0	0	0	0
02:00	0	0	0	00	00	0	0	0	0	0	0
03:00	0	0	0	00	00	0	0	0	0	0	0
04:00	0	0	0	00	00	0	0	0	0	0	0
05:00	0	0	0	00	00	0	0	0	0	0	0
06:00	3	0	0	00	00	0	0	0	0	0	0
07:00	8	0	0	00	00	0	0	0	0	0	0
08:00	20	4	20	29.53	38.08	0	0	1	0	0	0
09:00	10	2	20	39	58	0	0	1	0	0	0
10:00	12	3	25	16.03	38.08	0	0	0	1	0	0
11:00	8	3	37	01.43	04.95	0	0	0	0	0	0
12:00	8	1	12	15	15	0	0	1	0	0	0
13:00	7	0	0	00	00	0	0	0	0	0	0
14:00	9	0	0	00	00	0	0	0	0	0	0
15:00	8	0	0	00	00	0	0	0	0	0	0
16:00	0	0	0	00	00	0	0	0	0	0	0
17:00	0	0	0	00	00	0	0	0	0	0	0
18:00	0	0	0	00	00	0	0	0	0	0	0
19:00	0	0	0	00	00	0	0	0	0	0	0
20:00	0	0	0	00	00	0	0	0	0	0	0
21:00	0	0	0	00	00	0	0	0	0	0	0
22:00	0	0	0	00	00	0	0	0	0	0	0
23:00	0	0	0	00	00	0	0	0	0	0	0
Total	93	13	13	13.25	38.08	0	0	3	1	0	0

Figure 34: Example of the Detail portion of a Lost Calls report

Clicking set columns allows you to add, remove, or re-order columns in the report.

Clicking the remove rows button allows you to remove the selected row or rows from the report. You can select a single row or multiple rows by holding down the shift or ctrl keys. After removing rows, the totals are recalculated automatically.

For report column header descriptions see Appendix A: Call Report Reference Table.

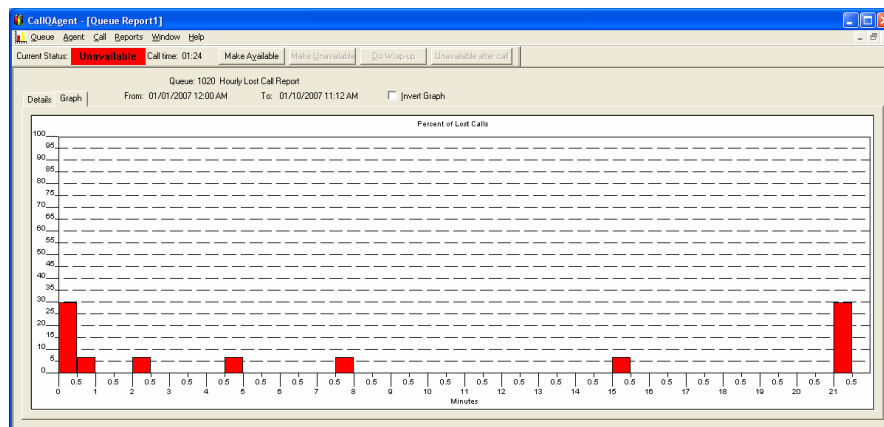


Figure 35: Example of the Graph portion of a Lost Calls report

The invert graph checkbox switches the vertical and horizontal axis of the graph.

10.1 Calls... Incoming Calls Report

The Incoming Calls Report shows the number of calls “offered” to the queue (calls that entered the queue), and what happened to those calls: the number

answered and the number that were lost (hung up after the early hang-up period). It also shows agent activities relative to the calls during that time period: the average talk time, wrap-up time, handling time (talk time plus wrap-up time), the average and maximum time that callers waited to reach an agent (the delay times), and the highest number of callers waiting in queue for that time period.

Time	Offered	Answered	Lost	Hangups	Ave Talk Time	Ave Wrapup Time	Ave Handling Time	Ave Delay	Max Delay	Max In Queue
00:00	0	0	0	0	00	00	00	00	00	2
01:00	0	0	0	0	00	00	00	00	00	2
02:00	0	0	0	0	00	00	00	00	00	2
03:00	0	0	0	0	00	00	00	00	00	2
04:00	0	0	0	0	00	00	00	00	00	2
05:00	0	0	0	0	00	00	00	00	00	2
06:00	3	3	0	0	05:24	01	05:25	3:52:09	10:50:25	4
07:00	8	8	0	0	04:08	01	04:09	1:50:23	10:50:57	5
08:00	20	15	4	0	07:02	00	07:03	2:39:34	39:32:16	6
09:00	10	7	2	0	10:46	01	10:47	02:31	07:58	4
10:00	12	8	3	0	14:32	01	14:33	07:51	38:08	4
11:00	8	5	3	0	12:34	01	12:35	05:34	11:10	4
12:00	8	6	1	0	08:03	15	08:18	10:25	38:27	2
13:00	7	7	0	0	34:59	00	35:00	06:26	14:48	4
14:00	9	9	0	0	15:28	00	15:29	07:26	36:43	3
15:00	8	8	0	0	11:33	01	11:34	36:17	3:38:19	1
16:00	0	0	0	0	00	00	00	00	00	1
17:00	0	0	0	0	00	00	00	00	00	1
18:00	0	0	0	0	00	00	00	00	00	1
19:00	0	0	0	0	00	00	00	00	00	1
20:00	0	0	0	0	00	00	00	00	00	2
21:00	0	0	0	0	00	00	00	00	00	2
22:00	0	0	0	0	00	00	00	00	00	2
23:00	0	0	0	0	00	00	00	00	00	2
Total	93	76	13	0	12:17	02	12:20	58:01	39:32:16	6

Figure 36: Example Incoming Calls Report

For report column header descriptions see Appendix A: Call Report Reference Table.

10.2 Calls... Call Duration Report

The Call Duration report is similar to the Incoming Calls report, but it shows only the number of calls and the average and maximum duration of those calls during the indicated time periods.

Time	Number Calls	Ave Duration	Max Duration
00:00	0	00	00
01:00	0	00	00
02:00	0	00	00
03:00	0	00	00
04:00	0	00	00
05:00	0	00	00
06:00	3	05:24	13:36
07:00	8	04:08	15:40
08:00	15	07:02	37:25
09:00	7	10:46	18:57
10:00	8	14:32	49:03
11:00	5	12:34	37:38
12:00	6	08:03	19:34
13:00	7	34:59	2:54:00
14:00	9	15:28	1:25:43
15:00	8	11:33	31:56
16:00	0	00	00
17:00	0	00	00
18:00	0	00	00
19:00	0	00	00
20:00	0	00	00
21:00	0	00	00
22:00	0	00	00
23:00	0	00	00
Total	76	12:17	2:54:00

Figure 37: Example Call Duration Report

For report column header descriptions see Appendix A: Call Report Reference Table.

10.3 Calls... Lost Calls Report

The Lost Calls report is also similar to the Incoming Calls report, but it focuses on calls that did not reach an agent. It shows the percentage of calls that are lost during each period of time, as well as the average and maximum times that callers waited before hanging up. It also shows the number of (early) “hang-up” calls. Figure 38 shows an example of a lost call report by day of the week.

Time	Offered	Lost Calls	% Lost	Ave Lost Delay	Max Lost Delay	Hangups	Queue Full	Voicemail	Dialed Out	Timed Out	No Agent Skills
Sunday	0	0	0	00	00	0	0	0	0	0	0
Monday	28	6	21	01:07	04:55	0	0	1	0	0	0
Tuesday	29	6	20	21:35	38:08	0	0	1	0	0	0
Wednesday	23	0	0	00	00	0	0	0	0	0	0
Thursday	14	3	21	22:46	38:08	0	0	0	2	0	0
Friday	5	0	0	00	00	0	0	1	0	0	0
Saturday	0	0	0	00	00	0	0	0	0	0	0
Total	99	15	15	13:38	38:08	0	0	3	2	0	0

Figure 38: Example Weekday Lost Call Report

For report column header descriptions see Appendix A: Call Report Reference Table.

10.4 Caller ID Report

This report searches the database for all calls from a particular caller id number for a specified period of time. Naturally, your system must have received the Caller ID from the caller or this report will not return any results. For each call located in the database, it shows when the call occurred, the delay experienced by the caller before reaching an agent or leaving the queue (by hanging up), and if the caller reached an agent, and the name of the agent the caller spoke with.

Instance	Time	Delay	Agent	Talk Time
0	10/18/2004 11:02 AM	01:31		00
1	10/18/2004 11:27 AM	01:03	Jim Friend (171)	06:10
2	10/18/2004 02:22 PM	04:08		00
3	10/18/2004 02:40 PM	06:54	Jim Friend (171)	01:34
4	10/19/2004 11:25 AM	06:14	Jim Friend (171)	03:37
5	10/19/2004 12:19 PM	02:43	Jim Friend (171)	02:23
6	10/19/2004 02:33 PM	06:51		00
7	10/19/2004 05:22 PM	53	John Muller (199)	02:02
8	10/20/2004 03:23 PM	04:12	John Muller (199)	08:40
9	10/20/2004 03:34 PM	59	Jim Friend (171)	09:39
10	10/20/2004 04:54 PM	09:25	John Muller (199)	16:31
11	10/20/2004 05:39 PM	25	John Muller (199)	12:07
12	10/21/2004 11:17 AM	01:05	Jim Friend (171)	08:21

Figure 39: Example Caller ID Report

For report column header descriptions see Appendix A: Call Report Reference Table.

10.5 All Agents Stats

The All Agents Stats report shows, for each agent of the queue, the cumulative time they were logged in and the total number of calls taken over the entire reporting period. It also computes averages for the period of each agent's talk time, wrap-up time, handling time (talk + wrap-up time), and Available time. Each agent's productivity is computed as the percentage of time that they were either on a call, in wrap-up from a call, or were available to take a call (it's a percentage against the unavailable time). Finally, the number of times that the agent was in the Available state and was presented with a call that the agent did not answer is shown.

Agent	Login Time (hrs)	Calls Handled	Ave Talk Time	Ave Wrapup Time	Ave Handling Time	Available Time	Unavailable Time	Productivity %
(1020)	20.2	0	00	00	00	00	20:12:25	0
Carl Doss (128)	0.0	0	00	00	00	6:11:20	15:55:20	0
David Woo (111)	0.0	0	00	00	00	00	00	0
Eric Reid (138)	0.0	0	00	00	00	00	00	0
Greg Romines (200)	6.9	3	42:48	08	42:56	04	45:13:54	0
Jim Friend (171)	23.7	43	10:57	01	10:58	1:12:36	14:57:16	36
John Muller (193)	27.2	34	18:59	01	19:00	55:12	15:23:42	43
Total	78.1	80	17:08	01	17:10	8:19:12	111:42:37	0

Figure 40: Example All Agents Stats Report

For report column header descriptions see Appendix A: Call Report Reference Table.

10.6 Specific Agent Stats

The Specific Agent Stats report is similar to the All Agents Stats report, but it gives more details about the activities of a specified agent, including summarizing the data over desired summary periods (hourly, daily, weekly, or monthly, etc.).

Time	Login Time (hrs)	Calls Handled	Ave Talk Time	Ave Wrapup Time	Ave Handling Time	Available Time	Unavailable Time	Productivity %	Dropped Calls	Holds	H
Sunday	0.0	0	00	00	00	00	00	0	0	0	0
Monday	5.6	12	11:24	01	11:25	03:45	3:13:52	42	0	0	0
Tuesday	8.9	11	12:00	01	12:01	06:47	6:29:06	26	0	0	0
Wednesday	7.0	15	10:33	01	10:35	41:17	4:06:05	41	0	0	0
Thursday	2.3	5	08:48	01	08:49	20:47	1:10:39	48	1	0	0
Friday	0.0	0	00	00	00	00	00	0	0	0	0
Saturday	0.0	0	00	00	00	00	00	0	0	0	0
Total	23.8	43	10:57	01	10:58	1:12:36	14:59:42	36	1	0	0

Figure 41: Example Specific Agent Stats Report

In addition to the information presented in the Agents report, the Individual Agent report also gives the number of times that the agent put a call on hold, the cumulative hold time for the summary period, and the number of times that the agent transferred a call somewhere else after taking it. These last items are computed only for agents who are connected to the system directly through an “MSI” card. Amanda cannot be aware of hold and transfer activities by agents who are connected by an external telephone switching system.

For report column header descriptions see Appendix A: Call Report Reference Table.

10.7 All Q Specific Agent Stats

This report is specific to an agent for all queues that the agent is a member of. The purpose of this report is to get the global performance of the agent. For example if you did a regular agent report the numbers might look bad, because the agent was spending constructive time in another queue.

10.8 Specific Agent Actions

This report is different from the other agent reports. Instead of summarizing the activities of agents over periods of time, this report shows the individual actions of an agent with respect to the currently connected queue. Actions include logging in, becoming available or unavailable, taking a call, finishing a call, etc.

CallQAgent - [Queue Report12]

Queue Agent Call Reports Window Help

Current Status: **Unavailable** Call time:

Agent Action Report for: John Muller (199)

From: 10/17/2004 12:00 AM To: 10/21/2004 11:44 AM

Report Time Zone: EDT Elapse time format is in hh:mm:ss

Instance	Time	Action	Queue	Caller ID	Data
0	10/18/2004 11:07 AM	attach	John Muller (199)		
1	10/18/2004 11:07 AM	attach	1010		
2	10/18/2004 11:08 AM	attach	(1020)		
3	10/18/2004 11:09 AM	checking_calls			1010
4	10/18/2004 11:09 AM	available			1020
5	10/18/2004 11:09 AM	checking_calls			1010
6	10/18/2004 11:09 AM	unavailable			1020
7	10/18/2004 11:27 AM	connecting		760-804-1571	
8	10/18/2004 11:27 AM	init_in_call		760-804-1571	
9	10/18/2004 11:27 AM	on_call		760-804-1571	
10	10/18/2004 12:08 PM	wrapup		760-804-1571	
11	10/18/2004 12:08 PM	checking_calls			1020
12	10/18/2004 12:08 PM	unavailable			1010
13	10/18/2004 12:08 PM	connecting		818-885-1402	
14	10/18/2004 12:09 PM	init_in_call		818-885-1402	
15	10/18/2004 12:09 PM	on_call		818-885-1402	
16	10/18/2004 12:10 PM	wrapup		818-885-1402	
17	10/18/2004 12:10 PM	checking_calls			1020
18	10/18/2004 12:10 PM	unavailable			1010
19	10/18/2004 12:48 PM	detach	John Muller (199)		
20	10/18/2004 12:48 PM	detach	1010		
21	10/18/2004 12:48 PM	detach	(1020)		
22	10/18/2004 12:59 PM	attach	(1020)		
23	10/18/2004 01:00 PM	attach	1010		
24	10/18/2004 01:00 PM	attach	John Muller (199)		
25	10/18/2004 01:13 PM	connecting		760-564-1244	

Figure 42: Example Specific Agent Actions Report

For report column header descriptions see Appendix A: Call Report Reference Table.

10.9 Agent Need

This report gives the supervisor an idea of the overall activity in a queue over a period of time, broken down by a selected interval (such as, hourly). In particular, it can help the supervisor focus on which times the call center may be over or under staffed, because it evaluates the rate that the agents available were removing calls from the queue versus the rate at which calls entered the queue, during each period, and from that information, it calculates the optimum number of agents that should have been the right number to handle that call volume. This report should only be used as a historical bases and cannot predict the future.

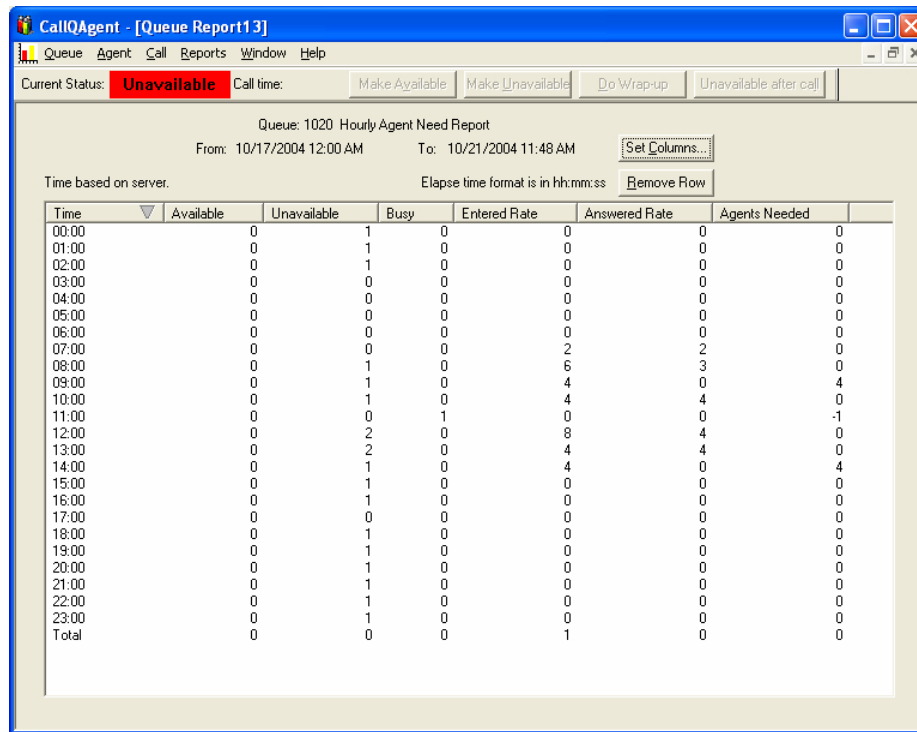


Figure 43: Example Agent Need Report

For report column header descriptions see Appendix A: Call Report Reference Table.

10.10 Call List... Specific Agent

This report allows the supervisor to see how many calls a specific agent has taken providing important information about each specific call including the time, caller id number (if applicable), how long each caller held in queue before their call was answered (delay), how long the agent was on the call (talk time), and shows any comments entered by the agent about the call (if wrapup comments are enabled). Figure 44 shows an example Specific Agent report.

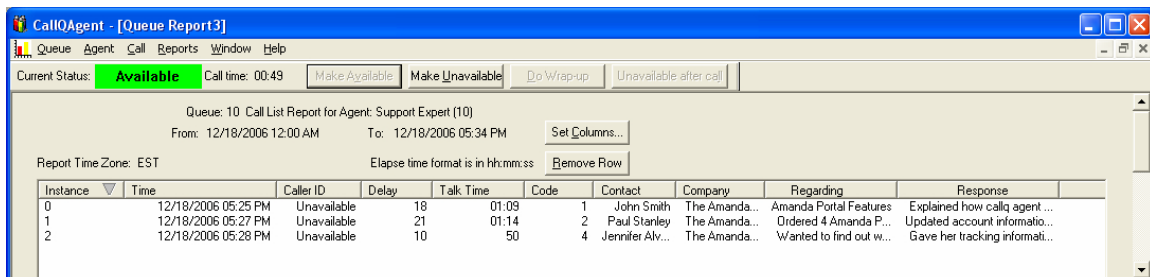


Figure 44: Example Call List / Specific Agent Report

For report column header descriptions see Appendix A: Call Report Reference Table.

10.11 Call List... All Agents

This report is very similar to the Specific Agent report except it shows answered by all agents. Figure 45 shows an example of an All Agents report.

Instance	Time	Caller ID	Delay	Agent	Talk Time	Code	Contact	Company	Regarding	Response
0	12/18/2006 05:25 PM	Unavailable	18	Support Expert (10)	01:09	1	John Smith	The Amanda...	Amanda Portal Fe...	Explained how c...
1	12/18/2006 05:27 PM	Unavailable	21	Support Expert (10)	01:14	2	Paul Stanley	The Amanda...	Ordered 4 Amand...	Updated account...
2	12/18/2006 05:28 PM	Unavailable	10	Support Expert (10)	50	4	Jennifer Alv...	The Amanda...	Wanted to find ou...	Gave her trackin...
3	12/18/2006 05:35 PM	Unavailable	07		00					
4	12/18/2006 05:36 PM	Unavailable	04		00					
5	12/18/2006 05:36 PM	Unavailable	06		00					
6	12/18/2006 05:44 PM	Unavailable	36		00					
7	12/18/2006 05:48 PM	Unavailable	14	Support Expert 2 (11)	03:24		Carl Johnson	ABC Company	Daylight Savings	Helped update th...
8	12/18/2006 05:50 PM	Unavailable	19	Support Expert (10)	01:24	1	John Jones	The Amanda...	Amanda SOHO PL...	Explained basic l...
9	12/18/2006 05:55 PM	Unavailable	18	Support Expert 2 (11)	04:42		Sara Smart	ABC Co.	Amanda backup t...	Explained how to...
10	12/18/2006 06:05 PM	Unavailable	13	Support Expert 2 (11)	01:01					
11	12/18/2006 09:14 AM	Unavailable	17	Support Expert (10)	15:09:26	1				

Figure 45: Example All Agents Call List Report

For report column header descriptions see Appendix A: Call Report Reference Table.

10.12 Call List... Dropped Calls

This report is different from the other call list report because it only shows calls that were dropped from the queue before being connected to an agent. This information is useful to a supervisor where they can access the caller id numbers of the dropped calls and call them back or have an available agent return their calls. A dropped call report shows the time, caller id, and how long the caller held in queue before hanging up or dialing out of the queue. Figure 46 shows an example dropped call report.

Instance	Time	Caller ID	Delay	Talk Time	Code	Contact	Company	Regarding	Response
0	12/18/2006 05:35 PM	Unavailable	07	00					
1	12/18/2006 05:36 PM	Unavailable	04	00					
2	12/18/2006 05:36 PM	Unavailable	06	00					

Figure 46: Example Dropped Call Report

For report column header descriptions see Appendix A: Call Report Reference Table.

11 Window Menu Options

Using the Window menu, shown in Figure 47, you can customize the CallQ Agent view to your liking.

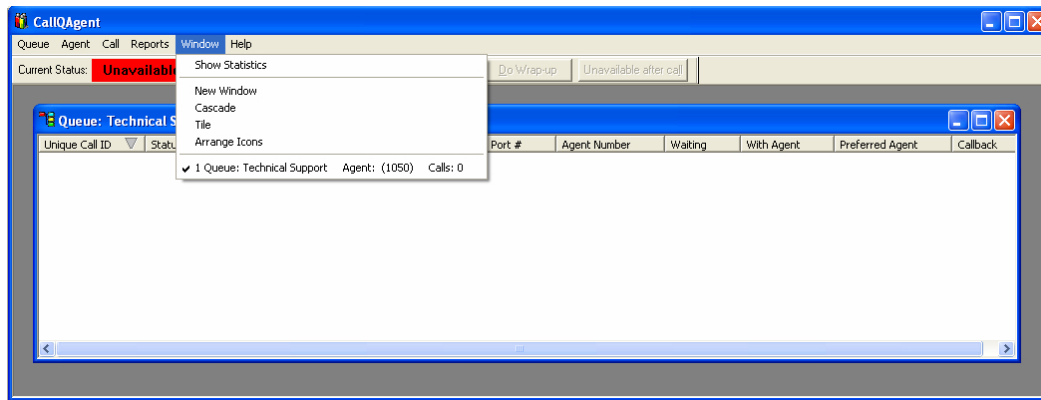


Figure 47: The Windows Menu

Window Menu Parameter Definitions:

Show Statistics This is a “toggle” which you turn on or off (as indicated by a check mark). When on, then in addition to whatever other windows you have on the CallQ Agent screen, you’ll also have a display of the real-time statistics of the queue called the “Dashboard”. The Dashboard is described in Subsection 11.1.

New Window Used to open a connection to another call queue.

Cascade When multiple call queues are open, you can cascade windows for easier call management.

Tile When multiple call queues are open, you can tile them making it easier to see calls in multiple call queues at the same time.

Arrange Icons When connected to multiple queues, or even a single queue and call queue icons are minimized, arrange icons make it easy to organize the queues.

These features are most useful when connecting to multiple call queues at the same time. For example if you choose the tiled view while connected to two queues, you’ll see something like the screen shown in Figure 48.

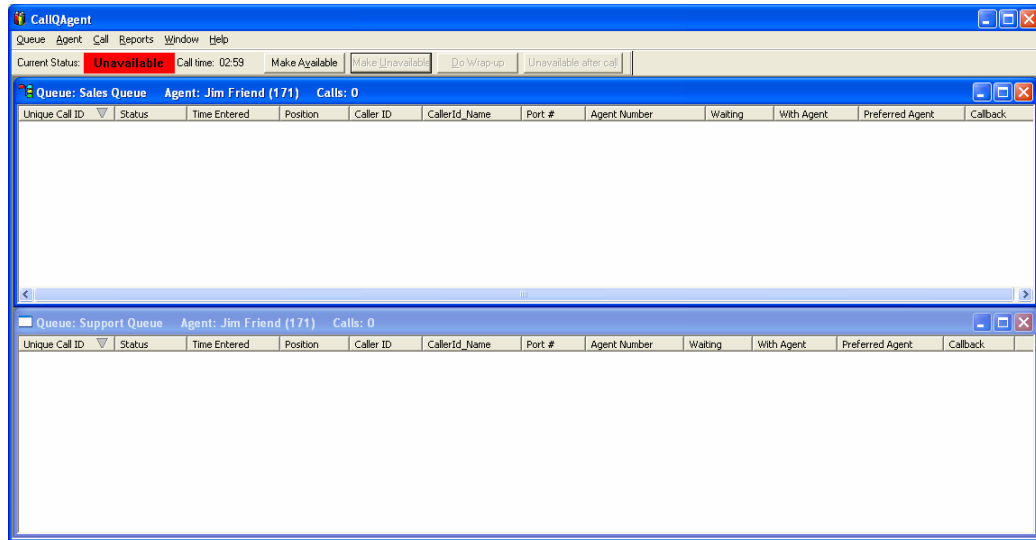


Figure 48: Example of connecting to two queues simultaneously

11.1 Real-Time Statistics Dashboard Display

An example of this display is shown in Figure 49. The information shown in this display includes:

Call Queue This control allows you to determine which of the queues to which you are connected should have its real-time statistics displayed in the Dashboard.

Calls Actively Waiting This section gives information about the calls are currently in queue holding for an agent:

Total This is the number of calls that are currently waiting to be connected to an agent.

After high time This is the number of calls which have been waiting more than the number of seconds specified for the queue in the “High Queued Time” parameter. This is set in the Queue Settings, Call Time Limits.

Longest waiting Of the calls that are currently waiting, this is time the longest-waiting call has been waiting.

Call Statistics This section displays information about calls that have entered the queue (though they are not necessarily still in the queue). The information shown is for either the current day or since the beginning of the current hour, depending on whether the “For the current hour” checkbox is marked. The information in this area includes:

Entered This shows the number of calls which entered the queue during the selected period.

Answered Shows the number of calls answered during this period. This number can potentially be higher than the number of calls entered, since the calls may have entered the queue prior to the beginning of the period.

Answered hour rate Shows the hourly rate that agents are answering calls (updated every 5 minutes). This value is also used when the system plays an estimate of the expected waiting time for callers entering the queue, by comparing the answered rate with the number of calls ahead of that caller.

Agents needed Based on the Entered and Answered hour rates, an estimate of the number of agents needed to make the Answered rate equal to the Entered rate.

Dialed out This is the number of callers who have dialed out of the queue other than going to voicemail. It will be zero for queues for which dialout is not allowed by the queue administrator.

Voicemail This is the number of calls which entered the queue and subsequently went to voicemail before reaching an agent. Such calls may not actually have left voicemail. Calls go to voicemail either by pressing the * key (if dialout is allowed for the queue) or because the maximum number of callers or maximum waiting time for the queue have been reached.

Early hangup This is the number of calls which entered the queue and Hung-up after a short time. The implication is that such callers may have entered the queue unintentionally. The time parameter for determining which hangup calls fall into this category is set by the queue administrator as the "Minimum Lost" setting.

Lost/hangup This is the number of calls which hung up during the period, excluding those counted as "Early hangup" calls.

Timed Out Shows the number of calls that held in queue for the maximum amount of time without being answered by an agent.

Time Started Shows the time the statistics started (statistics start immediately after logging into a queue).

Agent Statistics This section shows the number of agents logged into the queue, and of those, the number which are Busy on a call, Available to take a call, or are in the Unavailable state. For each of these four categories, you can press the associated button to see a list of the agents in that category.

Queue Stats1

Call Queue: **1050**

☐ For the current hour

Calls Actively waiting:

Total: **0** After high time: **0** Longest waiting: **00:00:00**

Call Statistics

Entered: **0** Answered: **0** Time started: **10/20/2004 11:10:27 AM**

Entered hour rate: **0** Answer hour rate: **0** Agents needed: **0** Timed out: **0**

Dialed out: **0** Voicemail: **0** Early hangup: **0** Lost/hangup: **0**

Agent Statistics

Manned... **1** Busy... **0** Available... **0** Unavailable... **1**

Figure 49: Example of the real-time statistics “Dashboard”

The Dashboard display shows data, which is instantaneously updated. That is, as soon as a call comes into the queue, the Entered value will be incremented. When it is connected to an agent, dials out, or hangs up, the appropriate fields will also be updated right away. In contrast, the data that is used for the Call Reports is for calls, which have completed— either finished wrap-up, or dialed out or hung up. Therefore, the Entered and Answered values will “lead” the values shown in a report for the current hour, because the include calls that will not be journaled to the statistics database until after the agent hangs up and wrap-up completes.

Appendix A: Call Report Reference Table

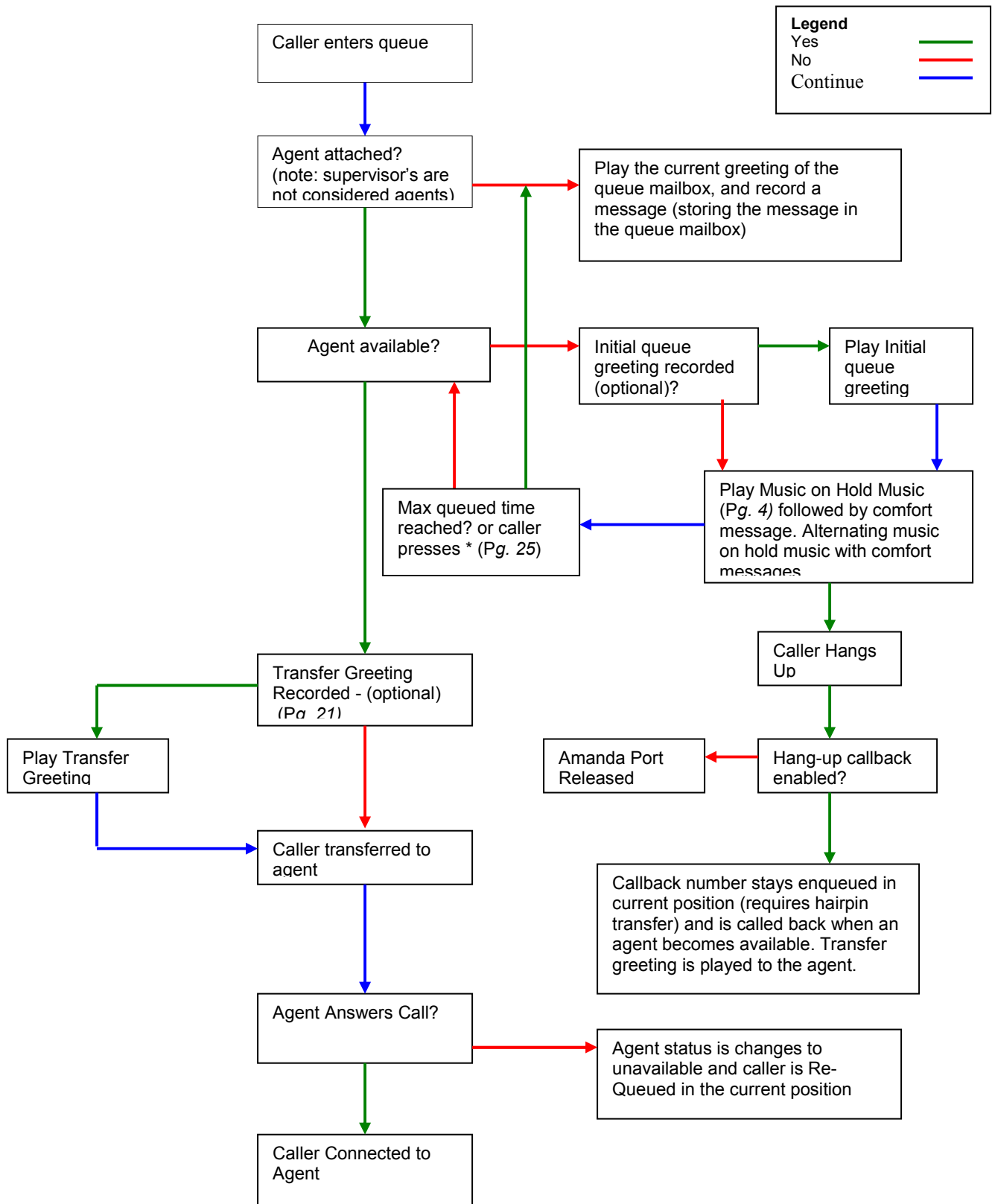
Column Header	Description	Reports Used
Action	Represents actions taken by agents of the call queue. Actions can be attaching to a queue, checking for calls, making you available, unavailable, connecting a call, wrapping up a call and detaching from the queue.	Agents: Specific Agent Actions
Agent	The mailbox number and or name of each agent of the queue.	Caller ID, Agents: All Agent Stats, Call List: All Agents
Agents Needed	The number of agents needed is calculated based on the number of calls and call duration for the specified time period.	Agents: Agent Need
Agent Skills	Used for custom call routing. Calls can be routed based on skill sets. Custom programming is required to use this feature.	
Answered	The number of calls answered by agents of the queue.	Calls: Incoming Calls
Answered Rate	The rate agents are answering calls per hours. Results will vary base on how the report is summarized (i.e. based on hours, day of week, week, month, or day of month).	Agents: Agent Need
Available	The number of times within the specified time period that agents were in an available state.	Agents: Agent Need
Available Time	The amount of time the agent was in an available state over the entire reporting period.	Agents: Specific Agent Stats, Agents: All Q Specific Agent Stats, Agents: All Agent Stats
Ave Delay	The average delay shows the average wait time before callers are being answered by agents of the queue for the given time period.	Calls: Incoming Calls
Ave Duration	Shows the average call duration for the specified time period.	Calls: Call Duration
Ave Handling Time	The average talk time plus the average wrapup time.	Calls: Incoming Calls, Agents: Specific Agent Stats, Agents: All Q Specific Agent Stats, Agents: All Agent Stats
Ave Lost Delay	The average lost call delay based on the total delay time of lost calls divided by the total number of lost calls.	Calls: Lost Calls
Ave Talk Time	The average talk time per call based on the specified time period and number of connected calls. The average talk time is equal to the total talk time divided by the number of connected calls	Calls: Incoming Calls, Agents: Specific Agent Stats, Agents: All Q Specific Agent Stats, Agents: All Agent

	for that period of time.	Stats
Ave Wrapup Time	The average wrapup time. If wrapup comments are not enabled, the average wrapup time will be 0 minutes (i.e. no additional wrapup time is added).	Calls: Incoming Calls, Agents: Specific Agent Stats, Agents: All Q Specific Agent Stats, Agents: All Agent Stats
Busy	The number of times agents were busy.	Agents: Agent Need
Calls Handled	Total number of calls taken over the entire reporting period.	Agents: Specific Agent Stats, Agents: All Q Specific Agent Stats, Agents: All Agent Stats
Caller ID	A caller id number is required when running a caller id report. When running this type of report you must specify a telephone number to report on.	Agents: Specific Agent Actions, Call List: Specific Agent, Call List: All Agents, Call List: Dropped Calls
Check Call Time	The time it takes after you wrapup to determine if you're going available, waiting for a new call or being assigned an existing call.	Agents: Specific Agent Stats, Agents: All Q Specific Agent Stats
Comments	Shows the Wrapup comments entered by an agent. Wrapup comments must be enabled to use this feature.	Call List: Specific Agent, Call List: All Agents, Call List: Dropped Calls
Data	Additional information relating to which queue a given action occurred for.	Agents: Specific Agent Actions
Delay	Shows how long the caller held in queue before being answered by an agent.	Caller ID, Call List: Specific Agent, Call List: All Agents, Call List: Dropped Calls
Dialed Out	The number of callers who dialed out of the queue before being answered by an agent.	Calls: Lost Calls
Dropped Calls	The number of times that the agent was in the Available state and was presented with a call that the agent did not answer.	Agents: Specific Agent Stats, Agents: All Q Specific Agent Stats, Agents: All Agent Stats
Entered Rate	The number of calls that entered the queue per hour.	Agents: Agent Need
Hang-ups	The number of calls that hung-up before holding for the minimum lost duration. Callers who hold longer than the minimum lost seconds and hangup prior to being connected to an agent or dial out of the queue are considered lost calls.	Calls: Incoming Calls, Calls: Lost Calls
Holds	The number of times an agent put a call on hold. This only applies to system using MSI cards.	Agents: Specific Agent Stats, Agents: All Q Specific Agent Stats
Hold Time	The total elapsed time that calls were placed on hold.	Agents: Specific Agent Stats, Agents: All Q Specific Agent Stats
Instance	Each time the caller had dialed into the queue will be represented by a unique instance. The	Caller ID, Agents: Specific Agent Actions, Call List:

	information following the instance pertains only to that particular instance (i.e. 0 is the first time they called, 1 is the second, etc.).	Specific Agent, Call List: All Agents, Call List: Dropped Calls
Login Time	The cumulative time an agent was logged into the call queue.	Agents: Specific Agent Stats, Agents: All Q Specific Agent Stats, Agents: All Agent Stats
%Lost	The percentage of calls that were lost based on the total number of calls offered.	Calls: Lost Calls
Lost Calls	The total number of calls that hung-up or dialed out of the queue prior to being connected to an agent, but who held for longer then the minimum lost duration.	Calls: Lost Calls
Lost	The number of calls that hung-up after the early hangup period. Callers that hang-up prior to the early hangup period are not counted as real calls.	Calls: Incoming Calls
Max Delay	The maximum delay shows the longest time a caller waited to be answered by an agent of the queue for the given time period.	Calls: Incoming Calls
Max Lost Delay	The longest amount of time a caller waited to be answered before deciding to hangup before being answered by an agent.	Calls: Lost Calls,
Max Duration	Shows the highest call duration for the specified time period.	Calls: Call Duration
Max in Queue	Shows the highest number of calls holding in queue at the same time for the given time period.	Calls: Incoming Calls
No Agent Skills	The number of times callers attempted to enter the queue with no agents available, or are in queue when there are no agents available with the required skills (when agents with those skills leave the queue).	Calls: Lost Calls
Number Calls	The total number of calls that entered the queue for the given time period.	Calls: Call Duration
Offered	The total number of calls that entered the queue for the specified time period (summarized by hour, day, day of week, day of month, week or month).	Calls: Incoming Calls, Calls: Lost Calls
Productivity %	A percentage of the amount of time being in any other state other than unavailable. If your unavailable time is high then productivity will be low.	Agents: Specific Agent Stats, Agents: All Q Specific Agent Stats, Agents: All Agent Stats
Queue	Shows which queue an agent attached to or from.	Agents: Specific Agent Actions
Queue Full	The number of times the maximum number of allowed calls were in the queue at once. This parameter only applies when you limit the number of calls that can hold in queue at the same time.	Calls: Lost Calls
Talk Time	Shows how long the agent spoke to the caller for that call.	Caller ID, Call List: Specific Agent, Call List: All Agents
Time	Each report can be summarized by hour, day, day	Calls: Incoming Calls,

	of week, day of month, or month. When the report is summarized by hour, the hours are shown using military time.	Calls: Call Duration, Calls: Lost Calls, Caller ID, Agents: Specific Agent Stats, Agents: Specific Agent Actions, Agents: All Q Specific Agent Stats, Agents: Agent Need, Call List: Specific Agent, Call List: All Agents, Call List: Dropped Calls
Timed Out	The number of calls who held in queue for the maximum queue time without being answered by an agent.	Calls: Lost Calls
Transfers	Number of successful call transfers from the call queue to an agent.	Agents: Specific Agent Stats, Agents: All Q Specific Agent Stats
Unavailable	The number of times within the specified time period that agents were in an unavailable state.	Agents: Agent Need
Unavailable Time	The amount of time the agent was unavailable over the specified reporting period.	Agents: Specific Agent Stats, Agents: All Q Specific Agent Stats, Agents: All Agent Stats
Voicemail	The number of calls that were transferred to voicemail from the queue.	Calls: Lost Calls

Appendix B: Call Processing Diagram



Call Processing Diagram Overview:

Whenever a call enters a queue, Amanda Portal will evaluate the following:

- 1) Is an agent (not a supervisor) attached to the queue? If so, then the caller enters the queue. If not, the caller is sent to voicemail for the queue mailbox, the current greeting is played, and a message is recorded by the caller.
- 2) After a call is enqueued, CallQ agent will transfer the call to an available agent (if one is available), skipping the initial queue greeting and transferring the call to the agent as quickly as possible. If all agents are busy, or in an unavailable state, the caller will either hear the initial queue greeting (if one has been recorded), or music on hold music. If after the music on hold music is played all agents are still unavailable, comfort message 1 is played (if enabled).
- 3) If agents are still not available, music on hold music is played again. And then comfort message 2, etc. Repeating this process until the caller is connected to an agent, records a message, or hangs up.
- 4) When an agent becomes available, if a transfer greeting has been recorded, the transfer greeting is played to the caller, and then the caller is connected to the agent.

To better understand when comfort messages will be played, refer to the call processing diagram on page 79.